

**The Last  
HUNDRED  
YARDS**



**PLAYBOOK  
TABLE OF CONTENTS**

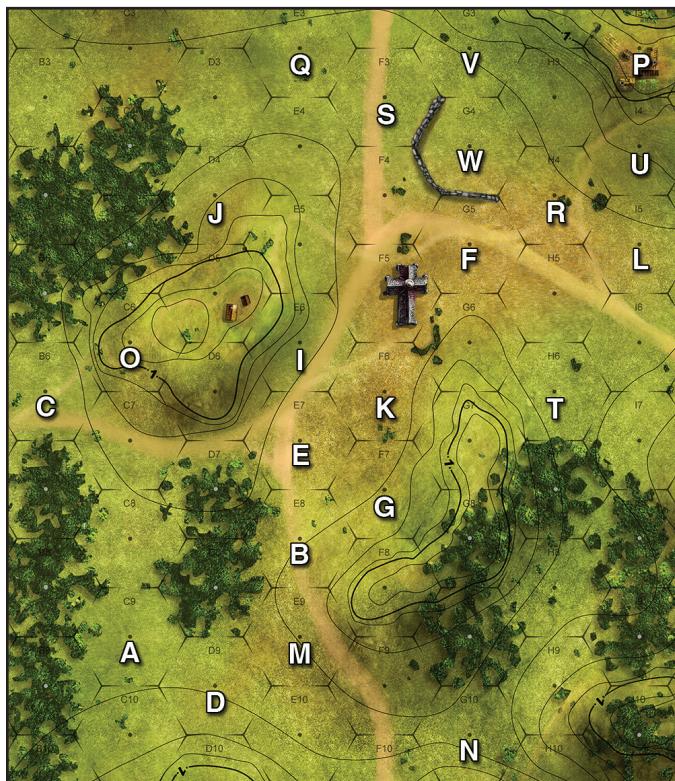
<b>24.0 Rule Examples.....</b>	<b>2</b>	<b>24.8 Fire Resolution .....</b>	<b>9</b>
24.1 Terrain.....	2	24.9 Assaults.....	11
24.2 Platoon Activation .....	5	24.10 Mortars .....	13
24.3 Withdrawal or Retreat.....	5	24.11 Russian Command & Control.....	14
24.4 Overruns .....	6	<b>25.0 Extended Examples of Play.....</b>	<b>15</b>
24.5 Shoot & Scoot.....	7	25.1 Infantry and Mortars.....	15
24.6 Halt & Fire.....	7	25.2 Armor.....	24
24.7 Enfilade.....	8	<b>26.0 Designer's Notes .....</b>	<b>30</b>

## 24.0 Rule Examples

### 24.1 Terrain

#### 24.1.1 Units on the Same Level

LOS traced from A to B is blocked because of the heavy woods in the intervening hex D8 [4.2.1a]. LOS traced from B to D is *not* blocked because LOS is clear when tracing along the hex side or vertices of a Blocking Terrain Hex, the heavy woods in D8 [4.2.1a]. LOS traced from C to D is blocked because of the heavy woods hexes (B7 and D8) on both sides along the hex side the LOS is traced [4.2.1b]. LOS traced from E to F is blocked because it intersects the church feature in hex F5 [4.2.1d]. LOS traced from G to T is blocked because it intersects the intervening level one hill in hex G7 [4.2.1c]. LOS traced from I to J is blocked because of the intervening hill in hex E5 [4.2.1c].



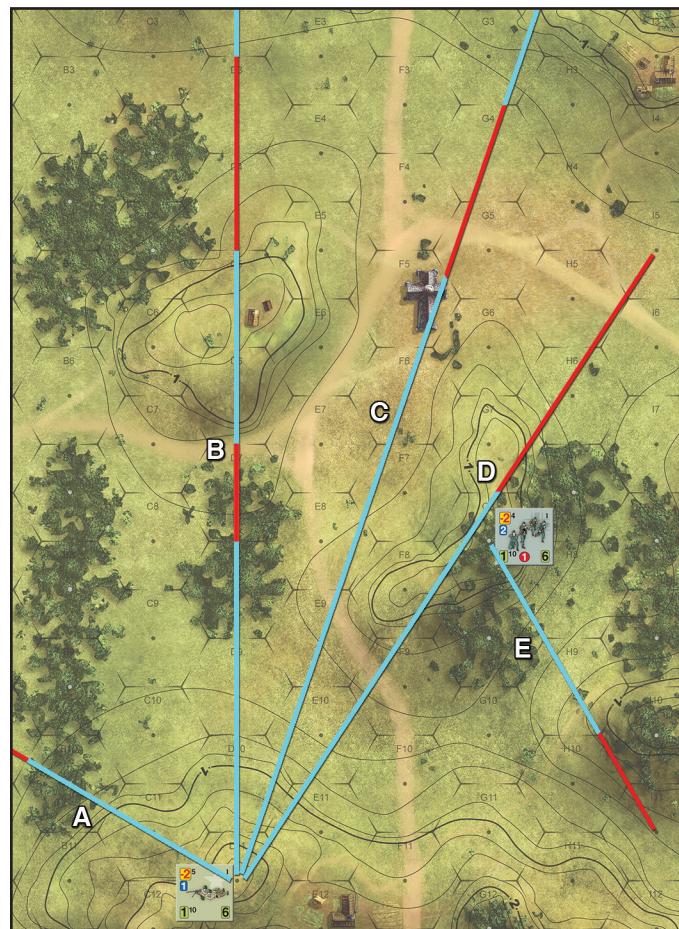
LOS traced from K to L is blocked because it intersects a contour in G6 *higher* than the contour in F6 or I5 [4.2.1c]. LOS traced from M to N is blocked because it intersects a contour in hex F9 *equal* to the contour in hex E9 [4.2.1c]. LOS traced from O to P is blocked because it intersects a *higher* contour between hexes C6 and D5 [4.2.1d]. LOS traced from U to V is not blocked because it does not intersect an intervening contour equal to or higher than the contour in hex I4 [4.2.1c]. LOS traced from Q to R is blocked because it intersects the wall between hexes F3 and G4 and neither E3 nor H4 is adjacent to a wall hex side or vertices [4.2.1e]. LOS traced from S to R and F or T is not blocked because a unit in F3 (S) is adjacent to the wall hex side when tracing from S to R and a wall vertex when tracing from S to F or T [4.2.1e]. LOS traced from U to W is clear per 4.2.1c.

#### 24.1.2 Units on Different Levels

[4.2.2] In this example, the green lines represent valid LOS and the red lines represent non-valid LOS (i.e., blind or blocked) and each level is x2.

**Case A:** The LOS is traced from American MG section in hex D11, a level 4 hill hex. The intervening heavy woods (*a Blocking Terrain Hex*) in hex B10 is level 2. The level difference is two [*4, the highest level, -2 for the level two forest*] and the distance in hexes from the hex at the highest level (D11) to the intervening heavy woods is two. Referring to the *Blind Hex Table*, and cross-referencing the Level Difference (row 2) with the number of hexes from the highest level to the intervening hill (column 2), results in one blind hex and therefore hex B10 is in LOS.

**Case B:** LOS is traced from the American MG section in hex D11 and the intervening hex (D5) in this case is a level two hill (*i.e., Blocking Terrain Hex*). The level difference is two [*4, the highest level, -2 for the level two hill*] and the distance in hexes from the hex at the highest level (D11) to the intervening hill is 6. Referring to the *Blind Hex Table*, and cross-referencing the Level Difference (row 2) with the number of hexes from the highest level to the intervening hill hex (column 6) results in two blind hexes.



**Case C:** LOS is traced from the American MG section in hex D11 and the intervening hex (F5) in this case is a level one stone church (*i.e., Blocking Terrain Feature*). The level difference is three [*4, the highest level, -1 for a stone building*] and the distance in hexes from the hex at the highest level (D11) to the intervening church feature is seven. Referring to the *Blind Hex Table*, and cross-referencing the Level Difference (row 3) with the number of hexes from the highest level to the church building feature (column 7), results in two blind hexes.

**Case D:** LOS is from hex American MG section in hex D11 and the intervening hex (G8) in this case is a heavily wooded level two hill hex (*i.e., Blocking Terrain Feature*). The level difference is zero [*4, the highest level, -2 for the level two hill and -2 for the heavy woods*]. Although LOS is clear to hex G8, all subsequent hexes are blind hexes and therefore out of LOS because the intervening hex (G8) is equal to or greater than the higher-level hex D11 [*4.2.2*].

**Case E:** LOS is traced from the German 1st Squad in hex G8 and in this case the intervening hex is a level 2 hill hex. The 1st Squad has LOS to hex H9, because LOS can be traced along the hex sides or vertices of a Blocking Terrain Hex [*4.2.1a*]. But it does not have LOS to hex III because the heavy wood hexes G8 and III occur on both sides of the hex sides the LOS is being traced [*4.2.1b*].

## 24.1.3 Enclosed Road - Urban Buildings

### 24.1.3.1 Observation

- a) If A were a non-vehicular unit (excluding a towed gun) and conducted an action, units B, C, D, and K could react because they are within the four hex observation limits along an Enclosed Road [*4.1.9.4a*]. Units E, F, G, and H could react because they are adjacent to A [*4.2*]. Units I, J, and L cannot react because they can't observe A through intervening blocking terrain [*4.0 c*].
- b) If A were a vehicle or towed gun and conducted an action, units B, C, D, and K could react because they are within the six hex observation limits along an Enclosed Road [*4.1.9.4a*]. Unit F could react because it is adjacent to A [*4.2*] and there is no intervening building in A's hex [*4.2.1f*]. Units E, G, and H cannot react because they can't observe A through intervening buildings in A's hex [*4.2.1f*]. Units I, J, and L cannot react because they can't observe A through intervening blocking terrain [*4.0 c*].

### 24.1.3.2 Small Arms Fire

- **Unit A:** can at fire at units B and C because they are within the two hexes allowed when firing along an Enclosed Road, but cannot fire at unit K because it is beyond the two hexes allowed. It could also fire at unit D as there are no intervening Enclosed Road hexes.
- **Unit B:** can fire at units A, C, and K because they are within the two hexes allowed when firing along an Enclosed Road Hex. It could not fire at unit D because it is not within the two hexes allowed.
- **Unit C:** can fire at units A, B, K, and L because they are within the two hexes allowed when firing along an Enclosed Road but cannot fire at unit D because it is beyond the two hexes allowed.

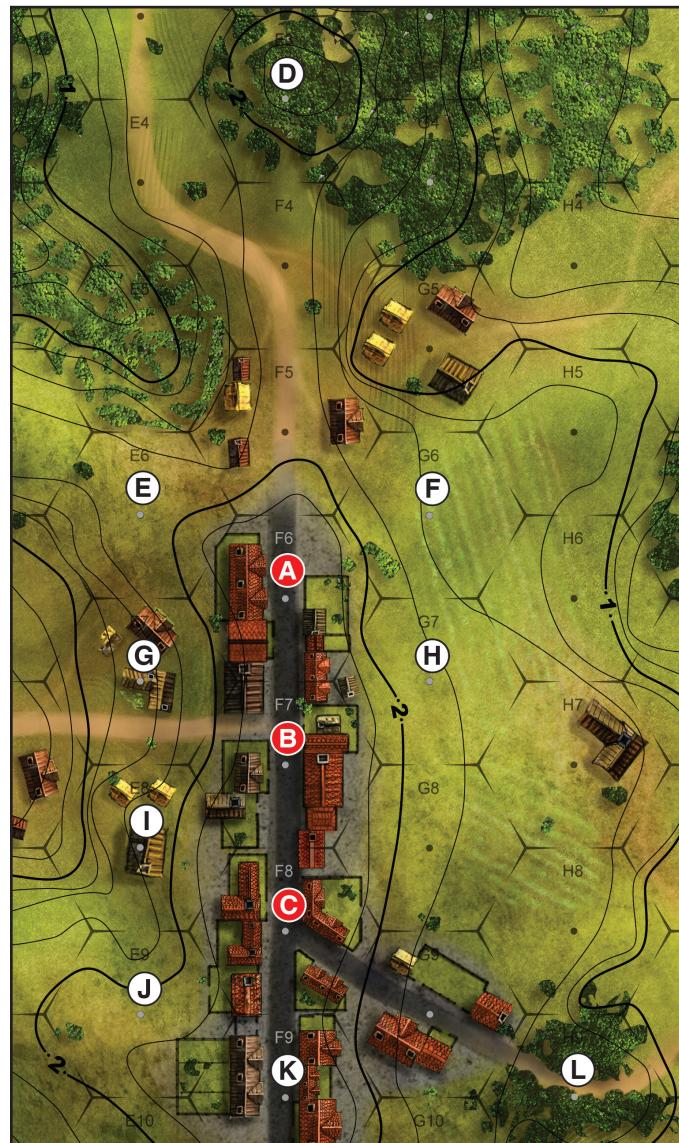
### 24.1.3.3 Anti-Tank Fire

Units in A, B, C, D, and K can all fire at each other because they are all within the six hexes allowed for when firing along an Enclosed Road.

#### Anti-Tank Fire into or from an Urban Road Hex [*4.2.1f*]:

- **Unit A:** could fire at unit F because there are no intervening buildings within the hex occupied by unit A, but could not fire at units E, G, and H because the LOS is blocked by the intervening buildings within the hex occupied by unit A.
- **Unit B:** could fire at units G and J because there are no intervening buildings within the hex occupied by unit B but could not fire at units H and I because the LOS is blocked by the intervening buildings within the hex occupied by unit B.
- **Unit C:** cannot fire at units G, H, I, and J because the LOS is blocked by the intervening buildings within the hex occupied by unit C.

*Note: A unit in A or B would receive the Hull down DRM if fired on from units F and G respectively because the fire is not along a road. Units A, B, or C would not receive the Hull Down DRM if fired on by units K or D because the fire is along the road and they are not at a higher level than K or D [11.5.4j].*



## 24.1.3 Enclosed Road - Rural Buildings

### 24.1.4.1 Observation

- a) If **A** were a non-vehicular unit (excluding a towed gun) and conducted an action, units **B** and **C** could react, but not units **D** and **E**, because they are beyond the four hex observation limits allowed when reacting to an action by a non-vehicular unit [4.1.9.4a].
- b) If **A** were a vehicle or towed gun and conducted an action, units **B**, **C**, and **D** could react but not unit **E**; because **E** is beyond the six hex observation limits allowed when reacting to an action by a vehicle or towed gun [4.1.9.4a].

### 24.1.4.2 Small Arms Fire

Unit **B** could fire at unit **A** because it is within the two hexes allowed when firing along an Enclosed Road but could not fire at units **C**, **D**, or **E** because they are not within the two hexes allowed [4.1.9.4b].

If unit **B** conducted an action, units **B** and **C** could fire against **B** because they are within the two hexes allowed [4.1.9.4b]. However, units **D** and **E** could not react because they are beyond the two hex fire action limit.

### 24.1.4.3 Anti-Tank Fire

Unit **A** could fire at units **B**, **C**, and **D** because all are within the six hexes allowed when firing along an Enclosed Road but could not fire at unit **E** because it is not within the six hexes allowed [4.1.9.4b].

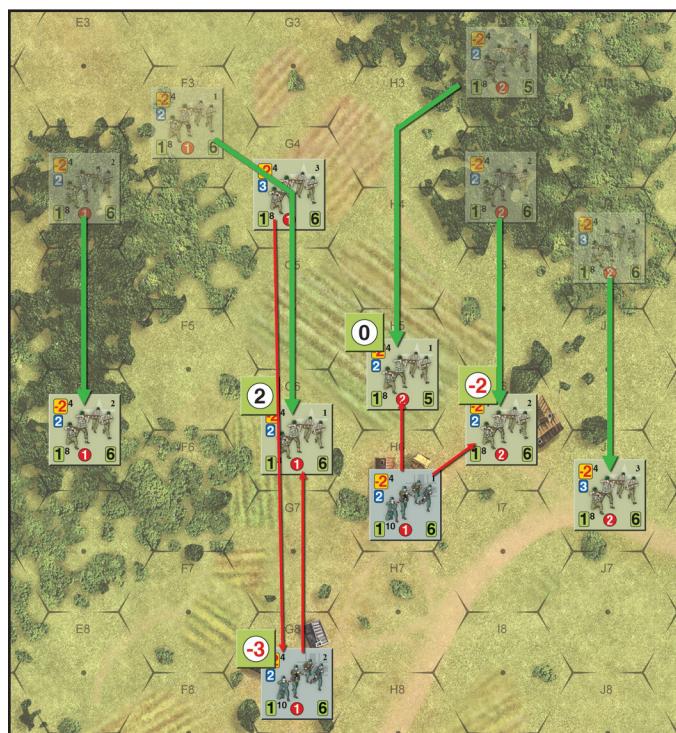
Units in **A** or **B** could fire at unit **F** because hexes G5 and G6 are Rural Building Roads and not Urban Road hexes [4.2.1ff].

*Note: Unit **B**, although in an Enclosed Road hex, would not receive the Hull Down DRM if the incoming fire is along the road from units **A**, **C**, **D**, or **E** [11.5.4j]. It would receive Hull Down if fired on from unit **F**.*



## 24.2 Platoon Activation

The American player wins the Initiative (i.e., the active player) and selects Able Co., which for this example contains the 1st and 2nd Platoons. His Coordination die roll is 6, and is unsuccessful because it was < 8. As a result, he must activate each platoon sequentially. [Note: If he had been successful in his attempt for Coordinated Activation, he could have conducted actions with any and/or all units of both platoons as well as any eligible ad hoc units before calling for Reaction].



The American player activates the 1st Platoon first and conducts maneuver actions with its 1st and 2nd Squads. He does nothing with the 3rd Squad at this time, in essence holding it reserve. Because the American player did not conduct an action with the 3rd Squad during its platoon activation, the 3rd Squad is now limited to reactions only. He then calls for *Reaction* from the German player. The German player may react with any of his units that observed actions conducted by units of the American 1st Platoon. Note that there is no platoon Activation required for Reaction.

The German player reacts by conducting a fire action with the German 2nd Squad against the American 1st Squad of the 1st Platoon that maneuvered in its LOS. A **2** SADRM marker [*1 for its SAV and 1 for Proximity Fire*] is placed in the hex occupied by the American 1st Squad. The German player elects not to react with the German 1st Squad, anticipating further actions by the American's 2nd Platoon, and calls for *Reaction* from the American player. The American player may react with any of his units, which have not conducted an action that observed actions conducted by units of the German player.

The American player reacts by conducting a fire action with the American 3rd Squad, 1st Platoon that did not conduct an action during its platoon's activation, against the German 2nd Squad that conducted a fire action in its LOS. Note that the American 3rd Squad of the 1st Platoon could not fire at the German 1st Squad because it did not conduct an action in its LOS. A player can only fire at

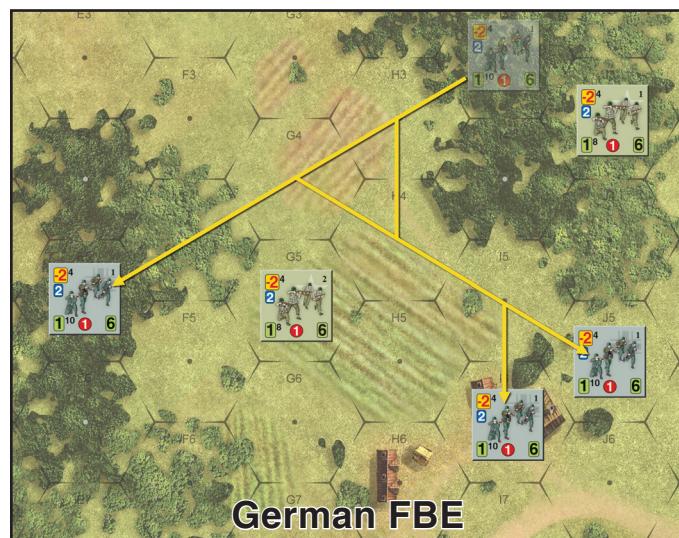
enemy units that conducted actions in their LOS prior to a call for Reaction. The American 3rd squad of the second platoon did not observe the German 2nd squad fire action (no LOS) and therefore it could not react and remains in hex J4.

**Play now** returns to Step 1 in the Platoon Activation Cycle. The active player (i.e., American) activates his 2nd Platoon and conducts maneuver actions with all three squads as shown and calls for Reaction from the German player. The German player reacts by conducting a Split Fire action against the American 1st and 2nd Squads of the 2nd Platoon. A **0** SADRM marker [*1 for its SAV, 1 for Proximity Fire, -2 for Split Fire*] is placed in the hex occupied by the American 1st Squad, and a **-2** SADRM marker [*1 for its SAV, 1 for Proximity Fire, -2 for Split Fire, -2 for the wooden building*] is placed in the hex occupied by the American 2nd Squad. The German player then calls for Reaction from the American player. The American player passes on any further reaction. As the active (American) player has no further platoons in Able Company to activate, play would proceed to the Fire Resolution Phase.

## 24.3 Withdrawal or Retreat

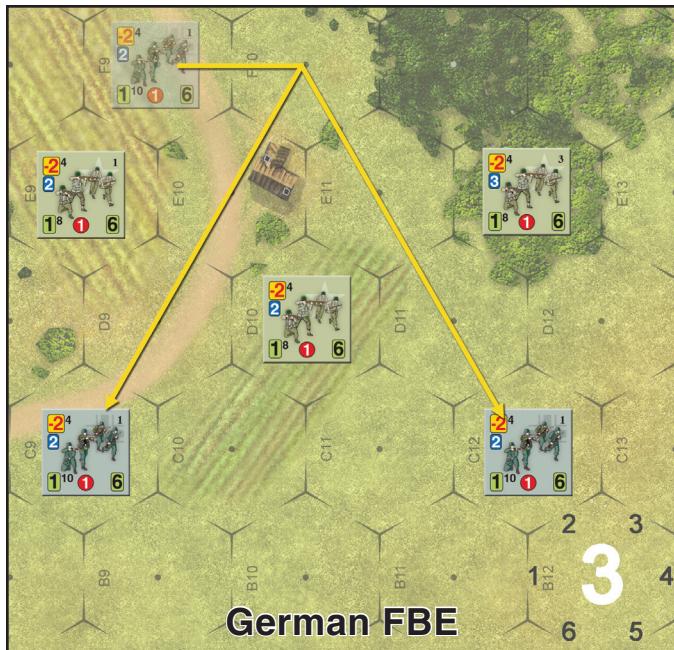
### 24.3.1 When the Hex Sides are Parallel to the FBE

The Withdrawal [*10.3.1.1a*] and Retreat [*14.3.3.1a*] Priorities, although not identical, are similar enough that this example is adequate for either. The German 1st Squad has elected to withdraw four hexes. Based on the Withdrawal Priority, the first hex entered must be hex H3 because this hex is toward the German 1st Squad's FBE and there are no adjacent hexes occupied by enemy combat units. From hex H3, eligible hexes (i.e., G4, H4 and I4) are adjacent to an enemy combat unit. He elects to consider hexes G4 or H4 as his options.



- If hex G4 were selected, its only options from there would be F4 or H4. If F4 were selected, its only option would be hex E5 where it would end its withdrawal.
- If H4 were selected, its only option would be Hex I5. From hex I5 it could enter and end its withdrawal in either J5 or J6.

At the end of its withdrawal, the German 1st Squad must be marked with a Regrouping marker because it entered a hex adjacent to an enemy combat unit during its withdrawal.

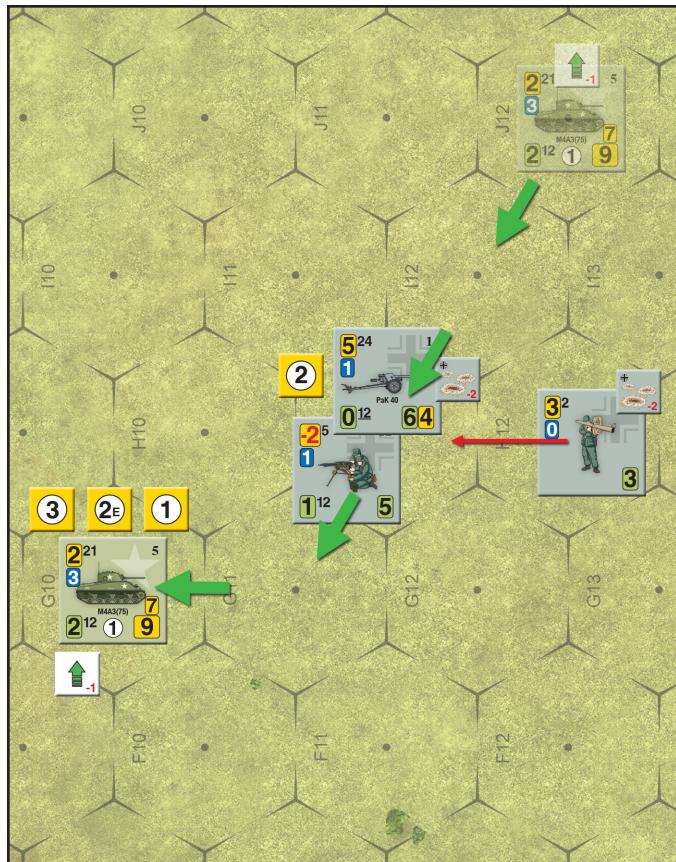


### 24.3.2 When no Hex Sides are Parallel to the FBE

The Withdrawal [10.3.1.1b] and Retreat [13.6.3.1b] Priorities, again although not identical, are similar enough that this example is adequate for either. In this example, the German 1st Squad has elected to withdraw and for example purposes will withdraw its full 4 hexes. Based on the Withdrawal Priority, the first hex entered must be hex F10. Although hex F10 is not *toward its FBE*, it is not adjacent to a hex occupied by an enemy unit and therefore because of the orientation of the map board, it may withdraw laterally. From hex F10, its only options are hexes E10 and E11. Hexes E10, E11 and F11 are adjacent to enemy combat units but only hexes E10 and E11 are *toward* its FBE.

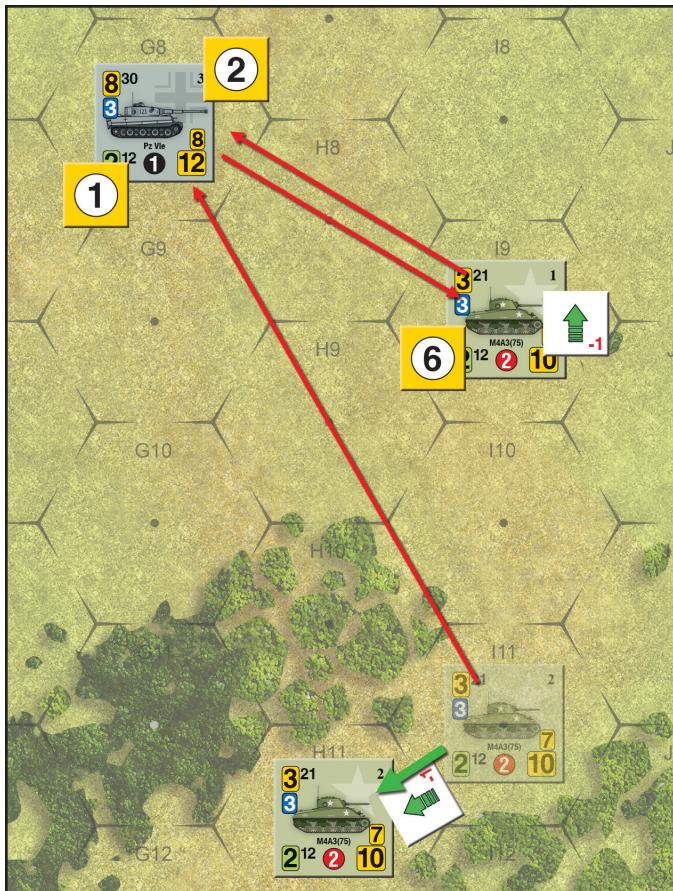
- If E10 were selected, its only option is D9 followed by C9 where it would end its withdrawal.
- If E11 were selected, its only option is D11 followed by C12 where it would end its withdrawal.

At the end of its withdrawal, the German 1st Squad is marked with a Regrouping marker because it entered a hex adjacent to an enemy combat unit during its withdrawal.



### 24.4 Overruns

The Sherman tank in hex J12 is in motion at the beginning of its action and is set to overrun the hex occupied by a German Anti-Tank Gun and MG section in an Improved Position in hex H11. The American player announces the Overrun and must specify the target. The Sherman can either Overrun conducting Small Arms Fire against the hex or Anti-Tank Fire against the Anti-Tank Gun. In this example, the American player selected the Anti-Tank Gun as its target. The Sherman maneuvers into the hex adjacent to the hex being Overrun at a cost of 1 MP, pays an additional MP to enter the hex, another MP for the Overrun for a total of 3 MP. The Sherman now temporarily halts its maneuver in the Overrun hex and conducts Anti-Tank Fire against the Anti-Tank Gun. An unmodified 2 ATDRM marker is placed on the Anti-Tank Gun. In reaction, the Anti-tank Gun must fire against the overrunning Sherman. A 3 ATDRM marker [*5 for the Anti-tank gun ATV and -1 for Motion and -1 for Suppression*] is placed on the Sherman. Also, the LATW section in hex H12 has the option to fire at the Sherman and does so. A 2e ATDRM marker [*3 for the LATWs ATV, -1 for Motion, and e for Enfilade*] is placed on the Sherman because the fire from the LATW section against the Sherman entered through a rear hex side. Once the Reaction Fire is completed the Sherman must now exit the Overrun hex, and does so expending its final 2 MPs, ending its maneuver in G10.



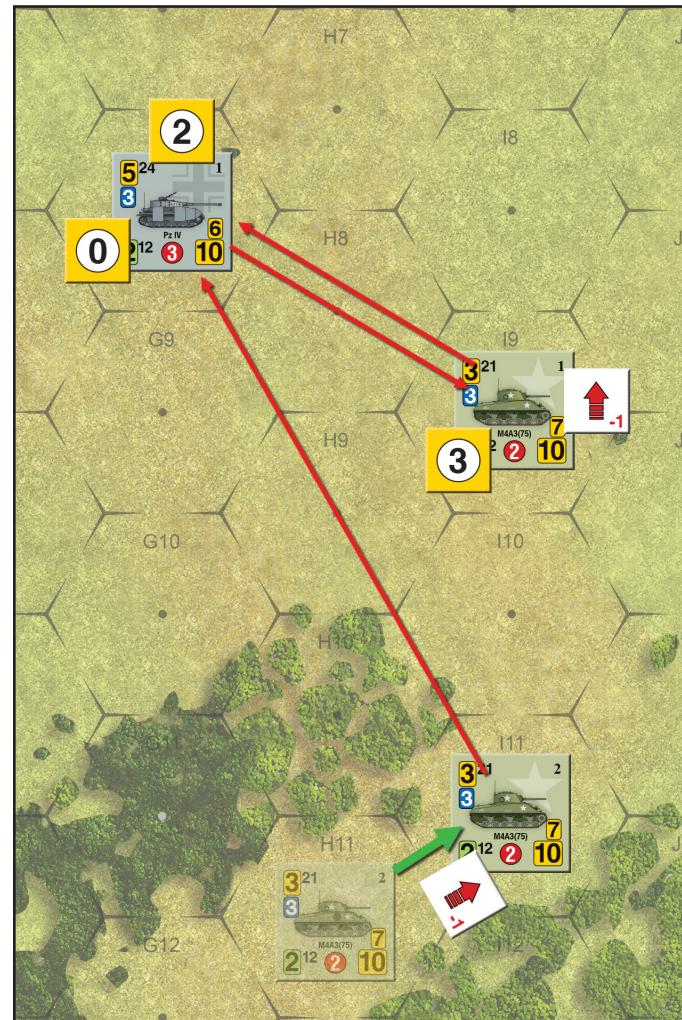
## 24.5 Shoot & Scoot

The American player has the Initiative and elects to activate the 2nd Tank Platoon, which in this case includes Sherman #1 and #2. Both Shermans are stationary at the beginning of the 2nd Platoon's activation. Sherman #1 declares a Shoot & Scoot action [10.4.2], fires at the German Tiger and goes into motion in its current hex. A Motion marker is placed on Sherman #1 and a 2 ATDRM marker [3 for its ATV, -1 for firing from current hex] is placed on the Tiger. Sherman #2 opts to conduct a Shoot & Scoot [10.4.2] action in order to avoid the return fire from the Tiger. It fires, goes into motion and maneuvers into adjacent hex H11. A 1 ATDRM marker [3 for its ATV, -2 for maneuvering to an adjacent hex] is placed on the Tiger and the American player calls for Reaction from the German player. Because Sherman #2 is no longer in his LOS, the Tiger fires at Sherman #1. A 6 ATDRM marker [8 for its ATV, -1 for Suppression, -1 for the Motion marker on the Sherman] is placed on Sherman #1.. The German player now calls for Reaction from the American player and the American player passes as in this example there are no other platoons to activate. Play proceeds to the Fire Resolution Phase.



## 24.6 Halt & Fire

The American player has the Initiative and elects to activate the 2nd Tank Platoon, which includes Sherman tanks #1 and #2. Both Shermans are in motion at the beginning of the 2nd Platoon's activation. Sherman #1 declares a Halt & Fire action [10.4.3] and stops in its current hex, flipping its Green Motion marker to its stopped (Red) side, and fires at the German Pz IV. A 2 ATDRM marker [3 for its ATV, -1 for firing from its current hex] is placed on the German Pz IV. Sherman #2, which begins its action out of LOS of the German Pz IV, conducts a Halt & Fire [10.4.3] action against the German Pz IV.



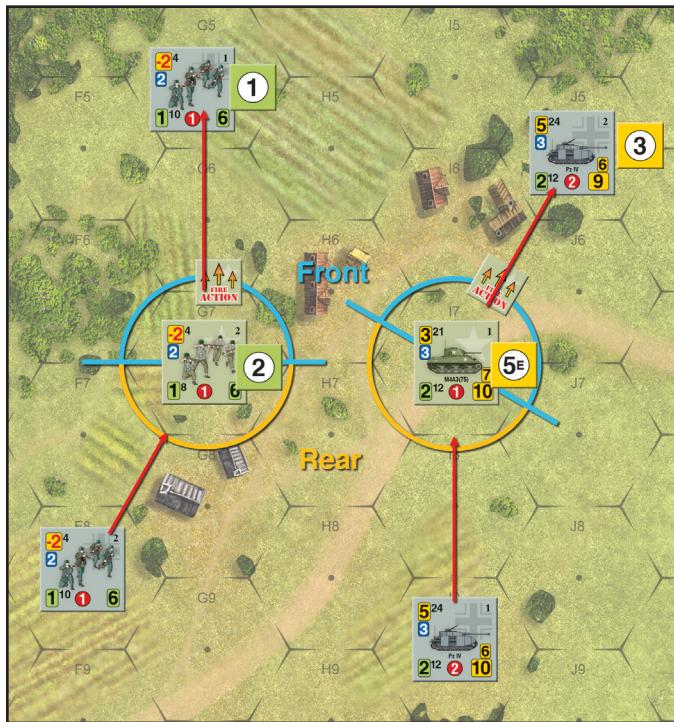
Sherman tank #2 maneuvers into the adjacent hex H11 and stops, flipping its Green Motion marker to its stopped (Red) side, and fires at the German Pz IV. A 0 ATDRM marker [3 for its ATV, -2 for firing from an adjacent hex, -1 for Obscure Target] is placed on the German Pz IV. The American player has no other units of the 2nd Platoon to activate and therefore calls for Reaction from the German player.

The German player reacts with the Pz IV and conducts a fire action against Sherman #1. A 3 ATDRM marker [5 for its ATV, -1 for Suppression, -1 for the Sherman's Motion marker] is placed on Sherman #1.. The German player now calls for Reaction from the American player. The American player passes as in this example there are no other platoons to activate. Play proceeds to the Fire Resolution Phase.

## 24.7 Enfilade

### 24.7.1 Against a Firing Unit

These two examples demonstrate the rear arc when firing or receiving fire through a hex side or vertex for enfilade purposes [II.1.1]. Fire actions, whether as a result of an Activation or Reaction, must occur within the same *Platoon Activation Cycle*; otherwise there is no Enfilade. In the example below, on the left, the American 2nd Squad conducts a fire action through a hex side, establishing its front, against the German 1st Squad. A **1** SADRM marker [**1** for its SAV] is placed in the hex occupied by the German 1st Squad. Note: Due to the possibility of enfilade, a fire action marker may be placed in such a way as to show the hex side (e.g., the American squad) or the vertex (e.g., the Sherman tank) through which they fired. The American player then calls for Reaction from the German player. In reaction the German 2nd Squad fires through the rear arc of the American 2nd Squad and a **2** SADRM marker [**1** for its SAV, +**1** for the Enfilade] is placed in the hex occupied by the American 2nd Squad. The German 1st Squad, although not required to do so, could have also reacted but for example purposes does not.

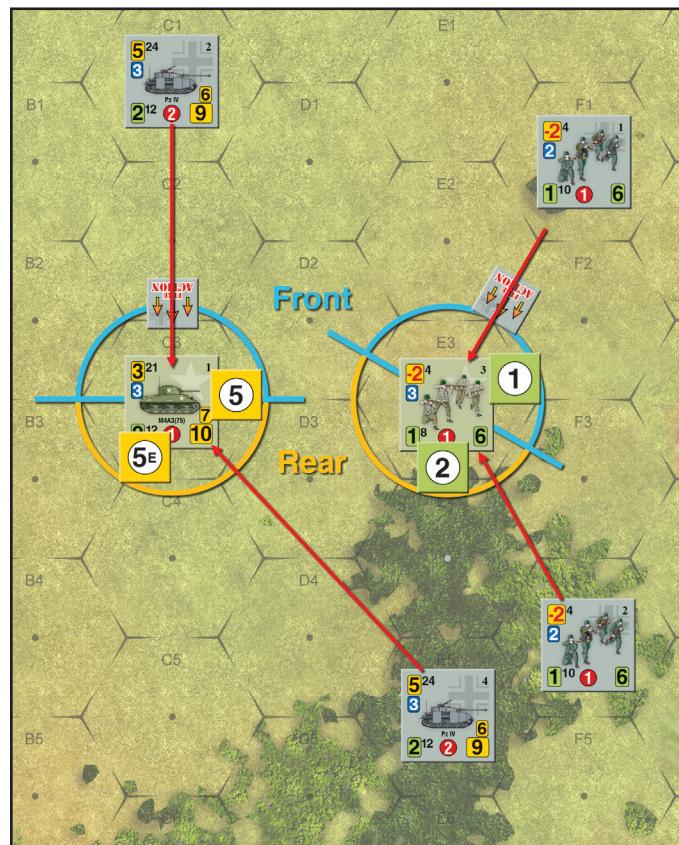


In the example above, on the right, Sherman tank #1 conducts a fire action through a vertex, establishing its front, against German Pz IV #2 and places a **3** ATDRM marker [**3** for its ATV] on the Pz IV. The American player calls for Reaction from the German player. In reaction the German Pz IV #1 fires through the rear arc of Sherman #1 and a **5e** ATDRM marker [**5** for its ATV, with an **e** for the Enfilade] is placed on the Sherman. German Pz IV #2, although not required to do so, could have also reacted but for example purposes does not.

### 24.7.2 As a Result of Crossfire

These two examples demonstrate the *rear arc* of a defending unit, at the beginning of an Activation or Reaction, when two enemy units are in such a position that if either fired, one would gain enfilade on the defending unit whether the incoming fire occurred through a hex side or vertex [II.1.2]. The enfilade occurs if the enemy fire actions, whether as a result of an Activation or Reaction, happen within the same *Platoon Activation Cycle*; otherwise there is no enfilade.

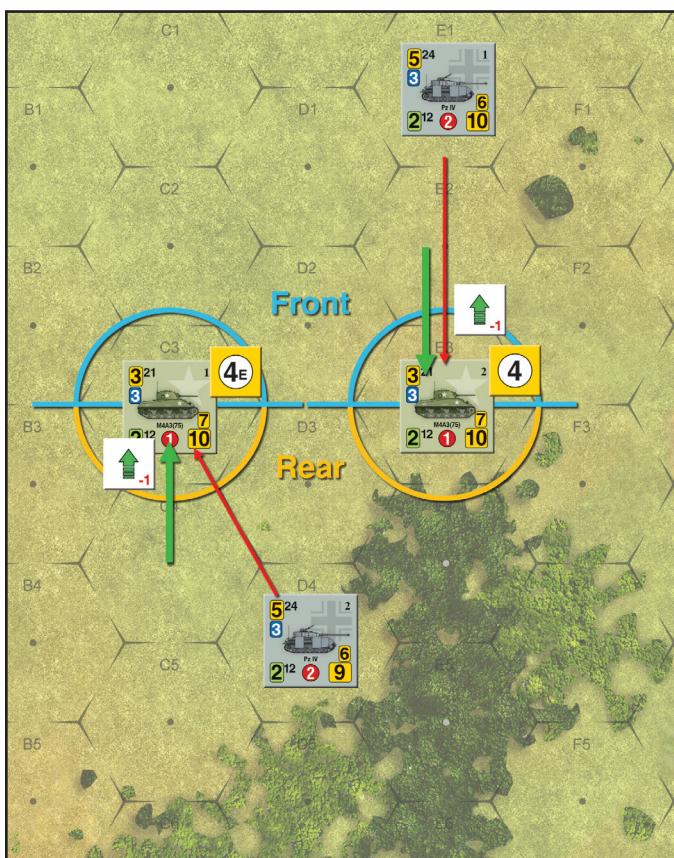
In the example below, on the right, the German 1st and 2nd Squads are in a position where if either fired, one or the other would gain enfilade against the American 3rd Squad. The American player must choose which enemy fire gains enfilade and opts to give the enfilade to the German 1st Squad. A **2** SADRM marker [**1** SAV for the German 2nd Squad, **1** for Enfilade] and a **1** SADRM marker [**1** SAV for the German 1st Squad] are placed in the hex occupied by the American 3rd Squad. The German player calls for Reaction from the American player. In reaction, the American 3rd Squad may return fire at either of the two German squads that fired or it may maneuver. If it maneuvers it will take the two SADRM markers with it.



In the example above, on the left, the German Pz IV #2 and #4 are also in a position where if either fired, one or the other would gain enfilade against Sherman #1. The American player opts to give the enfilade to the Pz IV #4. A **5e** ATDRM marker [**5** for Pz IV #4, with an **e** for the Enfilade] and another **5** ATDRM marker [**5** for Pz IV #2] is placed on Sherman #2. The German player calls for Reaction from the American player. In reaction, Sherman #1 may return fire at either of the two German tanks that fired or it may maneuver. If it maneuvers it will take the two ATDRM markers with it.

### **24.7.3 Against a Maneuvering AFV**

These examples demonstrate the *rear arc* of maneuvering AFVs, whether maneuvering forward or in reverse [11.1.3]. The last hex side crossed by a maneuvering AFV, shown by the position of the Motion marker in this example, determines the maneuvering unit's rear arc. Enfilade occurs only if the maneuver and reaction fire occur within the same *Platoon Activation Cycle*. In the example below, on the left, Sherman #1 ended its maneuver in motion in hex C3 and the last hex side crossed is the hex side between hexes C3 and C4. In the example below, on the right, Sherman #2 conducts a reverse maneuver action, ending its maneuver in motion in hex E3 and the last hex side it crossed is the hex side between E2 and E3.



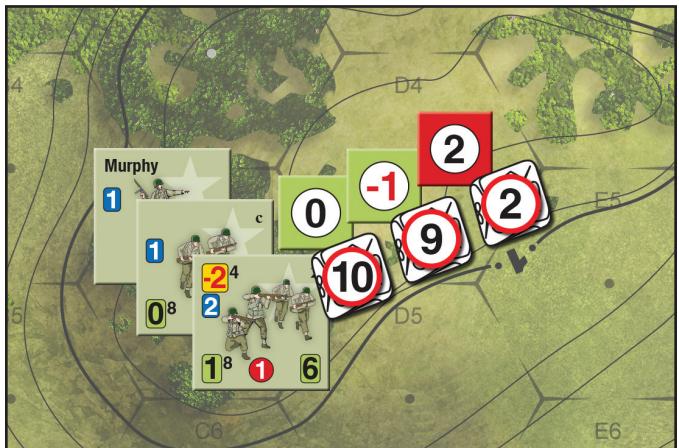
The American player calls for reaction from the German player. In reaction, Pz IV #2 fires through the rear arc of Sherman #1 and a **4e** ATDRM marker [*5 ATV of the German Pz IV #2, with an e for the Enfilade, and -1 for the motion*] is placed on Sherman #1. Pz IV #1 reacts and fires at the Sherman #2 and places a **4** ATDRM marker [*5 ATV of Pz IV #1, and -1 for the motion*] on Sherman #2 maneuvering in reverse. In this case there is no enfilade because Sherman #2 conducted a reverse maneuver maintaining its front against Pz IV #1.



## 24.8 Fire Resolution

### 24.8.1 Simple Fire Resolution

In this example, the American force is subject to both a Mortar Fire Attack (represented by the Red 2 MDRM marker), and the Small Arms Fire attack (represented by the Green 0 and -1 SADRM markers).



Non-vehicular units are subject to all SADRM and MDRM markers in their hex at the time of Fire Resolution. [Note: In cases where both players have units in the same hex (i.e., an assault) a player's units are subject only to the SADRM markers on his units while both player's units are subject to all MDRM markers in the hex].

One die is rolled for each SADRM and MDRM marker in the hex. In this example, a **2**, is rolled for the **2** MDRM marker resulting in a *Final Fire Attack Result* of **4**, a **9** is rolled for the **-1** SADRM marker resulting in a *Final Fire Attack Result* of **8**, and a **10** is rolled for the **0** SADRM marker resulting in a *Final Fire Attack Result* of **10**.

*[Note: The Final Fire Attack Result of 10 would be reduced by 1 if the hex contained a friendly undisrupted platoon leader of the same platoon, provided the platoon leader's Cohesion was greater than the Cohesion of the best combat unit (i.e., 2nd Squad) in the hex.]*

Only the single *highest Final Fire Attack Result* (not necessarily the highest die roll) is used and all others are ignored. In this case, the *Final Fire Attack Result* of 10 is the highest result. The 2nd Squad, being the best combat unit in the hex, would suffer a casualty and disrupt, and all other units (i.e., Lt. Murphy and Section c) in the hex must conduct a Cohesion Check and would disrupt if they fail.

## **24.8.2 Complex Fire Resolution**

In this example, at the beginning of the Fire Resolution Phase, the units in hex H9 include the American 1st Squad riding Shermans #1 and #2, and the 8th MG Section, which is not riding. Shermans #1 and #2 are both marked with a 2 ATDRM marker. In addition, the hex occupied by these units is marked with two 0 SADRM markers and one 2 MDRM marker.

- **Sherman #1** is subject to the **2 ATDRM** marker it is marked with, and the **2 MDRM** marker. The anti-tank Final Fire Result is **11 [2 ATDRM, + die roll of 9]** which is > **10** (**Sherman #1's Armor Value**), resulting in its destruction. The Mortar Final Fire Result is **12 [2, + die roll of 10]** which is > **10**, (**Sherman #1's Armor Value**), would result in shock if the 1st tank was stationary, but because it is in Motion, there is no effect [11.4.7c]. Of the two results, the destroyed result is applied, as it is the single most detrimental result.

- Sherman #2** is subject to the **2 ATDRM** marker it is marked with, and the **2 MDRM** marker. The anti-tank Final Fire Result is **10 [2 ATDRM, + die roll of 8]** which is = **10**, (Sherman #2's Armor Value) resulting in shock. The Mortar Final Fire Result is **12 [2 MV, + die roll of 10]**, which is > 10 (Sherman #2's Armor Value), also resulting in Shock.



• **1st Squad** is subject to Collateral Damage, because the Sherman it was riding was destroyed [*13.3.7a*], and both SADRM markers but not the MDRM marker. The MDRM marker is ignored because Riders/Passengers are immune to mortar fire when their transporting vehicle is in motion [*11.4.8g*]. Because Sherman #1, carrying the 1st Squad, was destroyed the 1st Squad suffers Collateral Damage and must unload, suffers a casualty and disrupts. The Final Fire Attack result for the two SADRM markers is **8 [die roll of 8, + 0 SADRM]** and **2 [die roll of 2, + 0 SADRM]**. Of these, the single most detrimental is the Final Fire Result of **8** which is > the 1st Squad's Cohesion of 6 causing the unit to disrupt. Because the Collateral Damage result is the most detrimental, the Small Arms Fire result is ignored, and therefore the Collateral Damage result is applied.

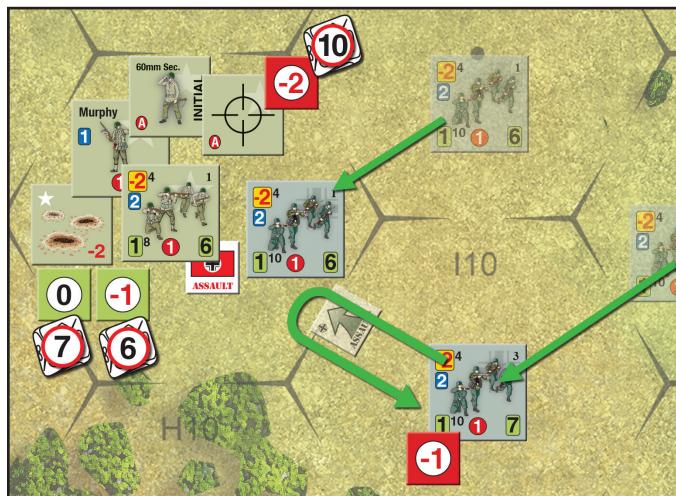
• **MG Section** is subject to Collateral Damage, because it is a *non-Rider* in a hex in which an AFV is destroyed [*13.3.7b*] and the SADRM and MDRM markers. The Final Fire Attack result for the two SADRM markers is **8 [die roll of 8, + 0 SADRM]** and **2 [die roll of 2, + 0 SADRM]**. Of these, the single most detrimental is the Final Fire Result of **8** which is > the MG section's Cohesion of 6 causing the unit to disrupt. The Final Fire Attack result for the MDRM marker is **12 [die roll of 10, + 2 MDRM]** which is > 10 resulting in a casualty and disruption. Finally, the Collateral Damage result calls for disruption. Because the Mortar Fire result is the most detrimental, the Small Arms Fire and Collateral Damage results are ignored, and the Mortar Fire result is applied.

#### 24.8.3 Fire Resolution in an Assault Hex

At the beginning of the game turn, Lt. Murphy and the 1st Squad are in an IP in hex H9. The German 1st Squad, 1st Platoon is in hex I9 and the German 3rd Squad, 1st Platoon is in hex J9. The German player has the Initiative and selects the 1st Kp., and was unsuccessful in his Coordination attempt.

He activates the 1st Platoon of the 1st Kp., and first conducts two small arms fire attacks, from the 2nd Squad and a MG section (these units are not shown) of the 1st Platoon, against hex H9 and places a **0** and a **-1** SADRM marker respectively in the hex suppressing the American units. He then declares an assault from *an adjacent*

hex [*10.5.2.1*] with the German 1st Squad, moving it into hex H9, and places a German Assault Nationality marker in the hex. Next he maneuvers his 3rd Squad into hex I10, adjacent to hex H9, and declares an assault from *a non-adjacent hex [10.5.2.2]* and places a German Assault Arrow marker on the 3rd Squad pointing to the hex being assaulted and calls for Reaction from the American player. [*Units in a hex marked with an Assault Nationality marker cannot react. The one exception being that a non-disrupted platoon leader can request an MFA, if available, in his hex; 10.5.3.1a.*]



Lt. Murphy successfully requests an MFA from Able Co. 60mm mortar section on his own hex. The corresponding FO and its Primary Impact marker is placed in hex H9. A **-2 MDRM** marker [**0 for the MV, -2 for the IP**] is placed in the primary impact hex and a single die roll is made to determine the location of the secondary impact hex. The secondary impact hex is I10 and a **-1 MDRM** marker [**0 MV, -1 for the secondary impact hex**] is placed in the secondary impact hex. The American player calls for Reaction from the German player who passes followed by the American player who also passes. In the following Marker Adjustment Step, the German 3rd Squad would normally be placed in the assault hex. But in this case it is not placed in the assault hex because it cannot enter a *primary* impact hex and instead remains in its current hex and suffers the fire attack (i.e., **-1 MDRM** marker) in the Fire Resolution Phase. Note that if the assault hex had not been a *primary* impact hex, the German 3rd Squad could have exited the secondary impact hex [*11.4.8e*] and entered the assault hex (H9) provided it does not disrupt when it exits.

The Fire Resolution can be resolved in any order and for this example we will explore the effects on each unit beginning with the American force.

The American units in the assault hex are subject to both the **0** and **-1** SADRM markers and the **-2 MDRM** marker. The results are respectively: **7 [0 SADRM, + die roll of 7]**, **5 [-1 SADRM, + die roll of 6]**, and **8 [-2 MDRM, + die roll of 10]**. Only the Final Fire Result of 8 is used, as it is the most detrimental result, and all other result are ignored [*13.1, Step 1*]. The American 1st Squad disrupts and Lt. Murphy must conduct a Cohesion Check.

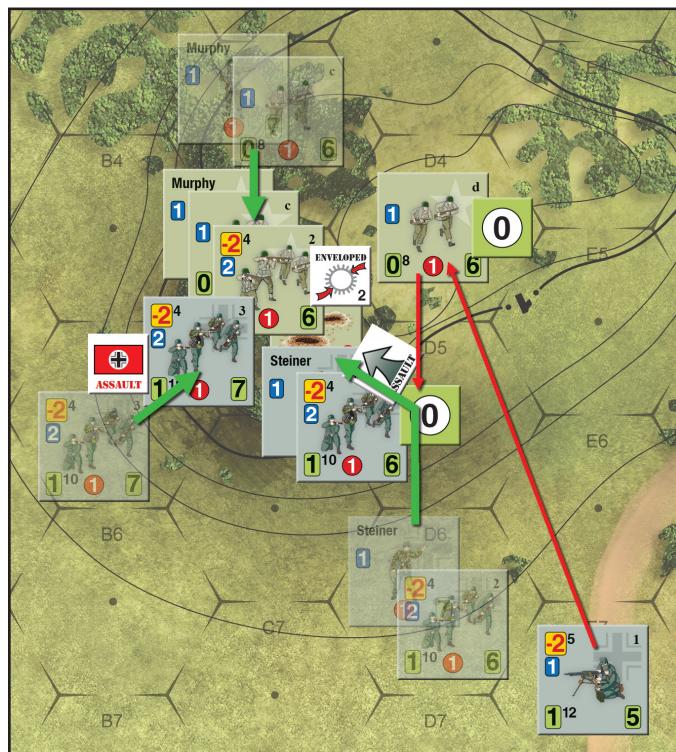
The German 1st Squad in the assault hex is subject to the **-2 MDRM** marker only. Note that the same die roll for the Mortar Fire Attack is used for both sides. The Final Fire Result of the mortar attack against the German 1st Squad is **10 [0 MDRM, + die roll of 10]** instead of a Final Fire Result of 8 for the American units because

the German 1st Squad does not receive the **-2** for the IP [12.1, Step 2]. As a result, because the Final Fire Result is  $\geq 10$ , the German 3rd Squad suffers a casualty and disrupts. Play now proceeds to the Assault Resolution Phase.

## 24.9 Assaults

### 24.9.1 Assault

In this example, the active (German) player has the Initiative and has activated the German 1st Platoon. First, the German MG section in hex E7 conducts a fire action to suppress the American infantry Section **d** and a **0** SADRM marker [**1** for the MG section's SADRM, **-1** for the hill] is placed in hex D4. The German 3rd Squad, which begins adjacent to the American 2nd Squad in hex C5, assaults from an *adjacent hex* and is immediately moved into the hex with the American 2nd Squad and a German Assault Nationality marker is placed in the hex showing that the Germans are the attacker. The German player then announces an assault from a *non-adjacent hex* and maneuvers Lt. Steiner and the German 2nd Squad, temporarily stopping in hex D5, and places a German Assault Arrow in the hex with Lt. Steiner and the German 2nd Squad. The German player now calls for Reaction from the American player. The American (non-active) player reacts by conducting a fire action with Section **d** against Lt. Steiner and the German 2nd Squad as they maneuver through hex D5 and places a **0** SADRM [**0** for its SAV, **-1** for Suppression, and **1** for Proximity Fire] in the hex. The American player then moves Lt. Murphy and Section **c** into hex C5 reinforcing the American 2nd Squad. Note that although Lt. Steiner and the German 2nd Squad are temporarily stopped, they will be placed in the assault hex (unless they declare a Feint [10.5.2.4]) during Marker Adjustment of the Platoon Activation Cycle.



The American player calls for Reaction from the German player. Both players pass on any further reaction. Lt. Steiner and the German 2nd Squad are now placed in the assault hex along with an Encirclement marker because the German combat units entered the assault hex (C5) from two non-adjacent hex sides. This ends the current Platoon Activation Cycle and play proceeds to the Fire Resolution Phase. For this example, both fire attacks have no effect.

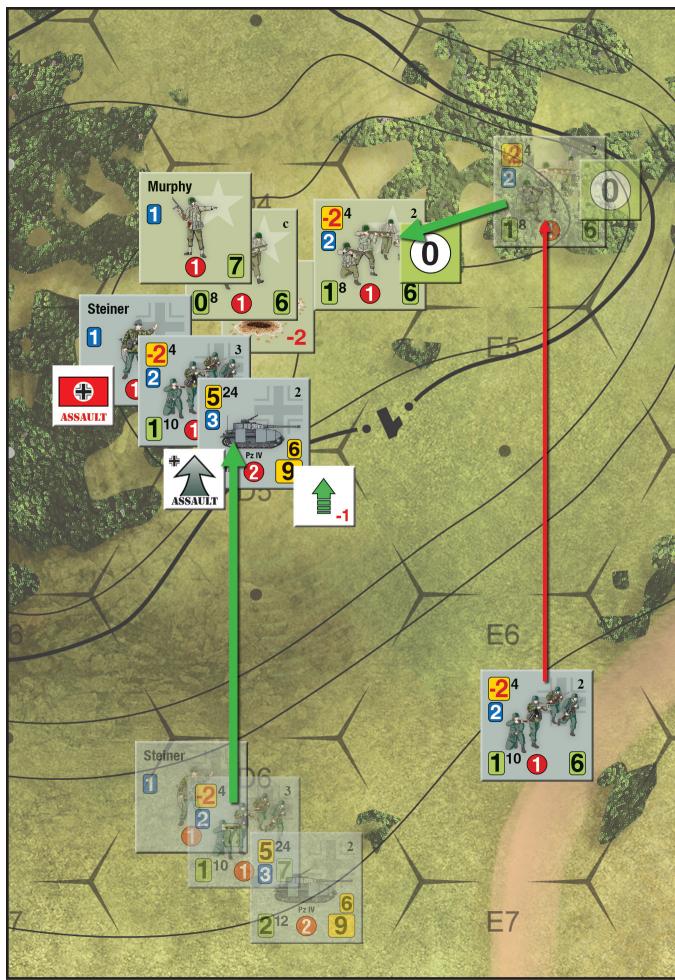
During the Assault Phase each player determines his force's Total Assault Value. The German's Total Assault Value is **8** [**2** for the Assault Value of the 3rd Squad, **2** for the Assault Value of the 2nd Squad, **1** for Lt. Steiner, **2** for the Encirclement marker, and **1** for the Cohesion Differential (**7** vs **6**), the difference in the Cohesions of the best German combat unit (3rd Squad) vs the Cohesion of the best American combat unit (2nd Squad)]. The Total Assault Value for the American player is **6** [**2** for the Assault Value of the 2nd Squad, **1** for Section **c**, **1** for Lt. Murphy, **1** for the IP, and **1** because at least one German combat unit assaulted from a lower level (uphill)]. The German's Final Assault DRM is **2** [**8** for the German's Total Assault Value less **6**, for the American's Total Assault Value]. To resolve the assault, the German player makes a single die roll of **6** and adds **2** (the Final Assault DRM) for a total of **8** and refers to the corresponding row on the *Assault Resolution Table* and executes the results in the order written. In this case, the American units must retreat and conduct a Cohesion Check. Both players then must check for Leader Loss and all undisrupted units, whether attacker or defender, are marked as Regrouping.

### 24.9.2 Assault by Infantry and AFVs

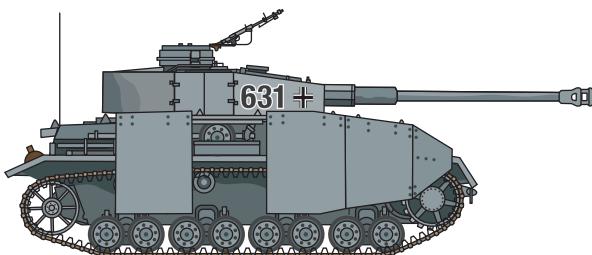
In this example, the active (German) player has the Initiative and has activated the German 1st Platoon. First, the German player conducts a fire action with the German 2nd Squad against the American 2nd Squad in hex E4 and places a **0** SADRM marker [**1** for its SAV, **-1** for firing up a hill or into woods (note that a player gets one or the other TEM, but not both)] in the hex occupied by the American 2nd Squad. The Pz IV #2 was in the same hex with Lt. Steiner and the 3rd Squad at the beginning of 1st Platoon's Activation, and as a result may activate with the 1st platoon. These units are all within two hexes of hex D4, and therefore may Assault from a non-adjacent hex. Lt. Steiner, his 3rd Squad and Pz IV #2, maneuver into hex D5 and temporarily end their maneuver to allow any reaction fire.

A German Assault Arrow marker is placed in the hex showing that the Germans are assaulting hex D4. The German player calls for Reaction. In reaction, the American section **c** fires at the assaulting German 3rd squad and places a **0** DRM marker [**0** SAV + **1** for proximity Fire **-1** for the German AFV] in hex D5 and maneuvers the 2nd Squad into hex D4, reinforcing Lt. Murphy.

The American player calls for Reaction from the German player and both players pass on any further reaction. This ends the Platoon Activation Cycle for the German 1st platoon. The German assaulting units are now placed in the Assault hex and a German Assault Nationality marker is placed in the hex showing the Germans as the attacker. Play now proceeds to the Fire Resolution Phase. For this example, all fire attack results have no effect.

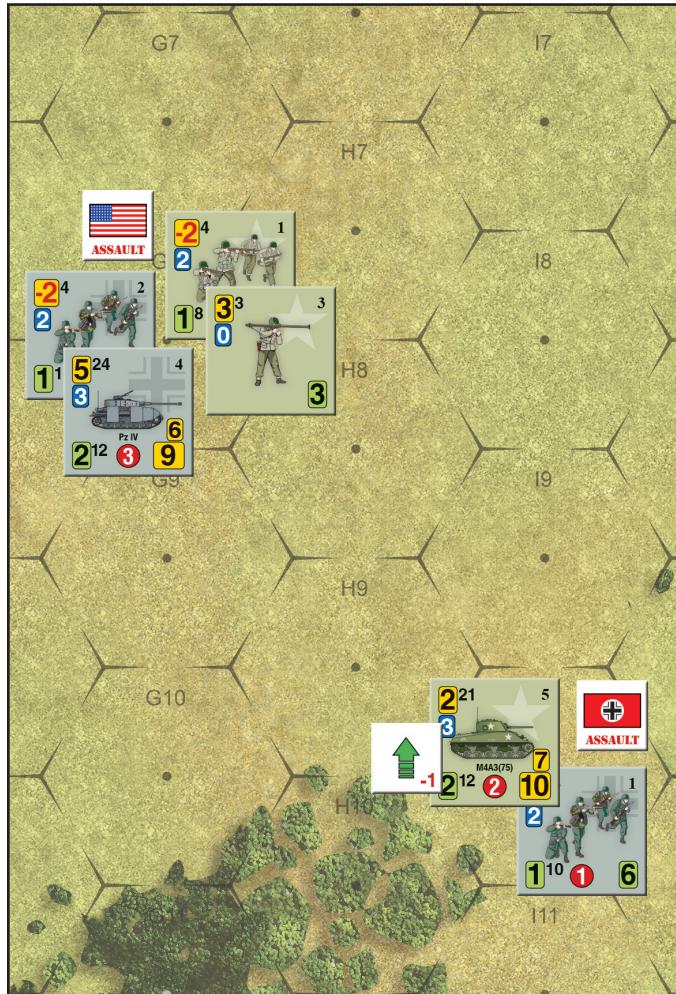


Play now proceeds to the Assault Phase with each player determining his force's Total Assault Value. The German's Total Assault Value is **6** [**2** for the Assault Value of the 3rd Squad, **1** for Lt. Steiner, **2** for Pz IV (**3** less **1** for its motion), and **1** for the Cohesion Differential (**7** vs **6**, the difference in the Cohesions of the best German combat unit (3rd Squad) vs. the Cohesion of the best American combat unit (2nd Squad)]. The Total Assault Value for the American player is **6** [**2** for the Assault Value of the 2nd Squad, **1** for Section c, **1** for Lt. Murphy, **1** for the IP, and **1** because at least one German combat unit assaulted from a lower level]. The German's Final Assault DRM is **0** [**6** for the German's Total Assault value, less **6** for the American's Total Assault Value]. To resolve the assault, the German player makes a die roll, and adds **0** (the Final Assault DRM), and refers to the corresponding row on the *Assault Resolution Table* and executes the results in the order written.



### 24.9.3 Vehicle Destruction Attempt

In the example below, the German player has won the assault. Because the American player has an undisrupted squad in the hex, he is allowed a Vehicle Destruction Attempt [14.3.2] against the German tank. The American player refers to the Vehicle Destruction Attempt Table and determines that the net Vehicle Destruction DRM is **4** [**2** for a squad of any nationality, **+2** for the LATW section]. The American player's die roll is **5 + 4** for the net Vehicle Destruction DRM for a final result of **9**. Because the final result is less than **10**, the Vehicle Destruction Attempt failed. Because the Americans lost the assault, the American units must now retreat and conduct a Cohesion Check.



In this example, in the lower right, the German player has won the assault, and because he has an undisrupted squad in the hex, he is allowed a Vehicle Destruction Attempt against the American tank. The German player refers to the Vehicle Destruction Attempt Table and determines that the net Vehicle Destruction DRM is **6** [**2** for a squad of any nationality, **+2** for a German squad after 9/43 (i.e., Panzerfaust), **+3** because the American tank is un-supported in or adjacent to a cover terrain hex, and **-1** for its Motion marker]. The German player's die roll is **7, +6** for the net Vehicle Destruction DRM for a final result of **13**. Because the final result is greater > **10**, the Vehicle Destruction attempt was successful and the American tank is destroyed.

## 24.10 Mortars

### 24.10.1 Mortar Fire Action (MFA)

**Russian MFA:** In this example, the Russian's objective is to drive the Germans from the woods. To do so, they must cross 150 yards of open ground under heavy fire. Captain Andreyev has requested a pre-attack barrage (MFA), using HE ammunition, against the German positions to disrupt enemy fire and cover his advance. The FO for the Russian mortar platoon is placed in the hex with Andreyev and the corresponding target marker is placed in hex E9, the target hex. The Russian player refers to the mortar value (MV) and ammo type columns of the *Mortar Fire Action Table* and cross references 80-82mm platoon line for the mortar values to be applied (*2 for a primary impact hex and 0 for a secondary*) and the ammo type column for the number of MDRM markers (8) to be allocated for placement. The Russian player now refers to the Scatter Diagram located in the lower right corner of each sector. Because this is a Russian mortar, the Russian player must make accuracy die rolls for all eight MDRM markers. In this example, the eight die rolls are **1, 2, 4, two 6s, two 8s, and one 9**. If the die roll is  $\geq 7$ , the corresponding MDRM marker is placed in the Primary Impact Hex. If the die roll  $< 7$ , the corresponding MDRM marker is placed in the corresponding Secondary Impact Hex. Each MDRM marker placed may be modified (see *Mortar Fire DRM Table*). The MDRMs markers are placed as follows:

- For the three die rolls  $\geq 7$ , three **1** MDRM markers [*2 for an MDRM in a primary hex +1 for airburst and -2 for the IP*] are placed in Primary Impact Hex E9.
- For the die roll of **1**, one **0** MDRM marker [*0 MV for a Secondary Impact Hex*] is placed in Secondary Impact Hex E8.

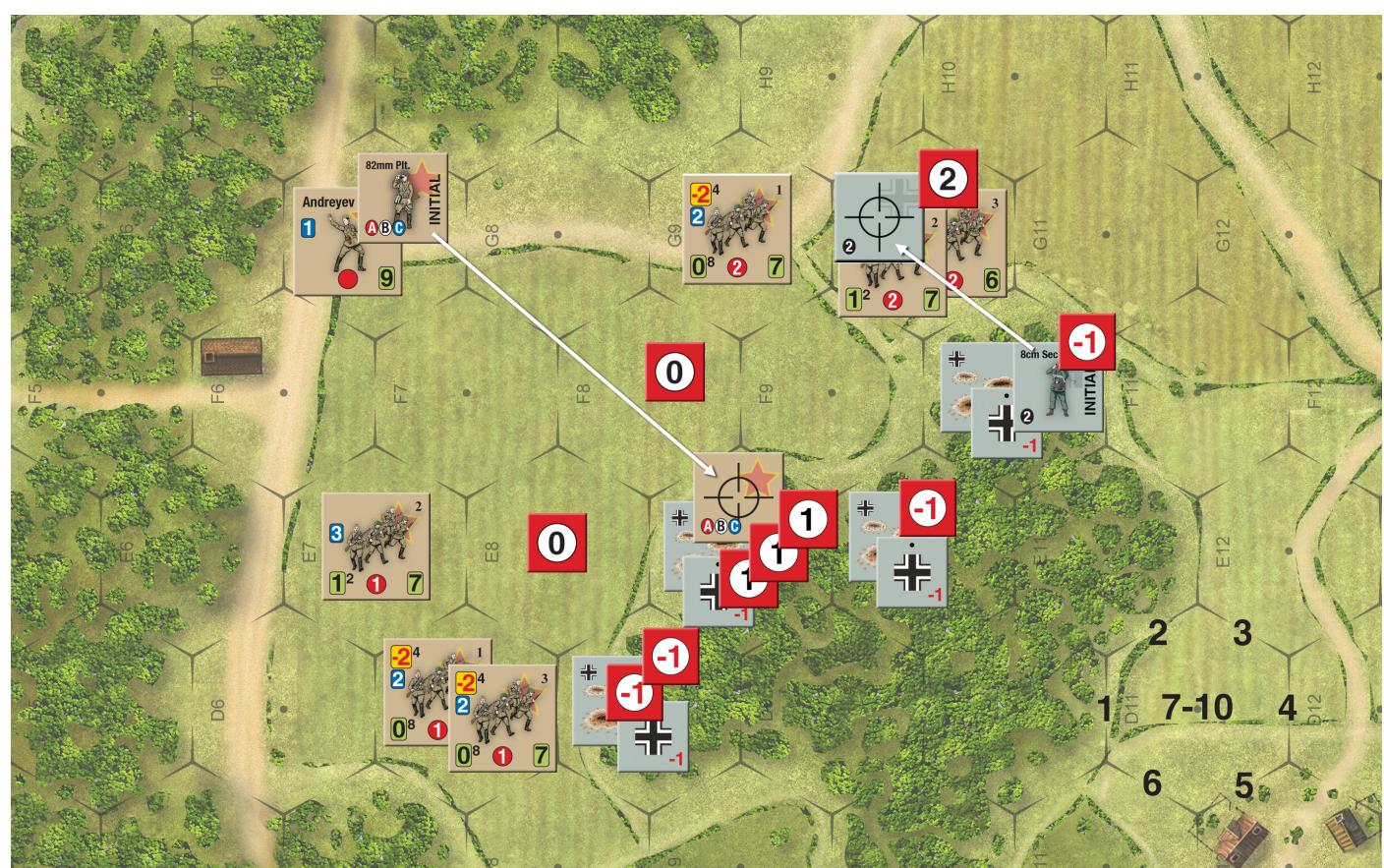
- For the die roll of **2**, one **0** MDRM marker [*0 MV for a Secondary Impact Hex*] is placed in Secondary Impact Hex F8.
- For the die roll of **4**, one **-1** MDRM marker [*0 MV for a Secondary Impact Hex +1 for airburst -2 for the IP*] is placed in Secondary Impact Hex E10.
- For the two die rolls of **6**, two **-1** MDRM marker [*0 MV for a secondary hex +1 for airburst -2 for the IP*] is placed in Secondary Impact Hex D8.

The Russian player then maneuvers his units and calls for Reaction.

**German MFA:** In reaction to the Russian move against his right flank, the German unit in F10 requests mortar support using HE ammunition from an available 8cm mortar section. The FO is placed in hex F10 with the requesting unit and its corresponding target marker placed in the target hex G10. The German player refers to the mortar value (MV) and ammo type columns of the *Mortar Fire Action Table* and cross references the 8cm mortar section row for the mortar value (*2 for a primary impact hex and 0 for a secondary*) to be applied and the ammo type column for the number of MDRM markers (2) to be allocated for placement. Because this is a German mortar and none of the conditions of 4.24 apply, one of the two MDRMs is automatically placed in the Primary Impact Hex and an accuracy die roll is made for the remaining MDRM marker. The accuracy die roll is **5**. The German player refers to the Scatter Diagram and places the MDRM markers as follows:

- For the die roll of **5**, one **-1** MDRM marker [*0 MV for a Secondary Impact Hex +1 for airburst -2 for the IP*] is placed in Secondary Impact Hex F10.

The mortar fires are resolved in following Fire Resolution Phase.

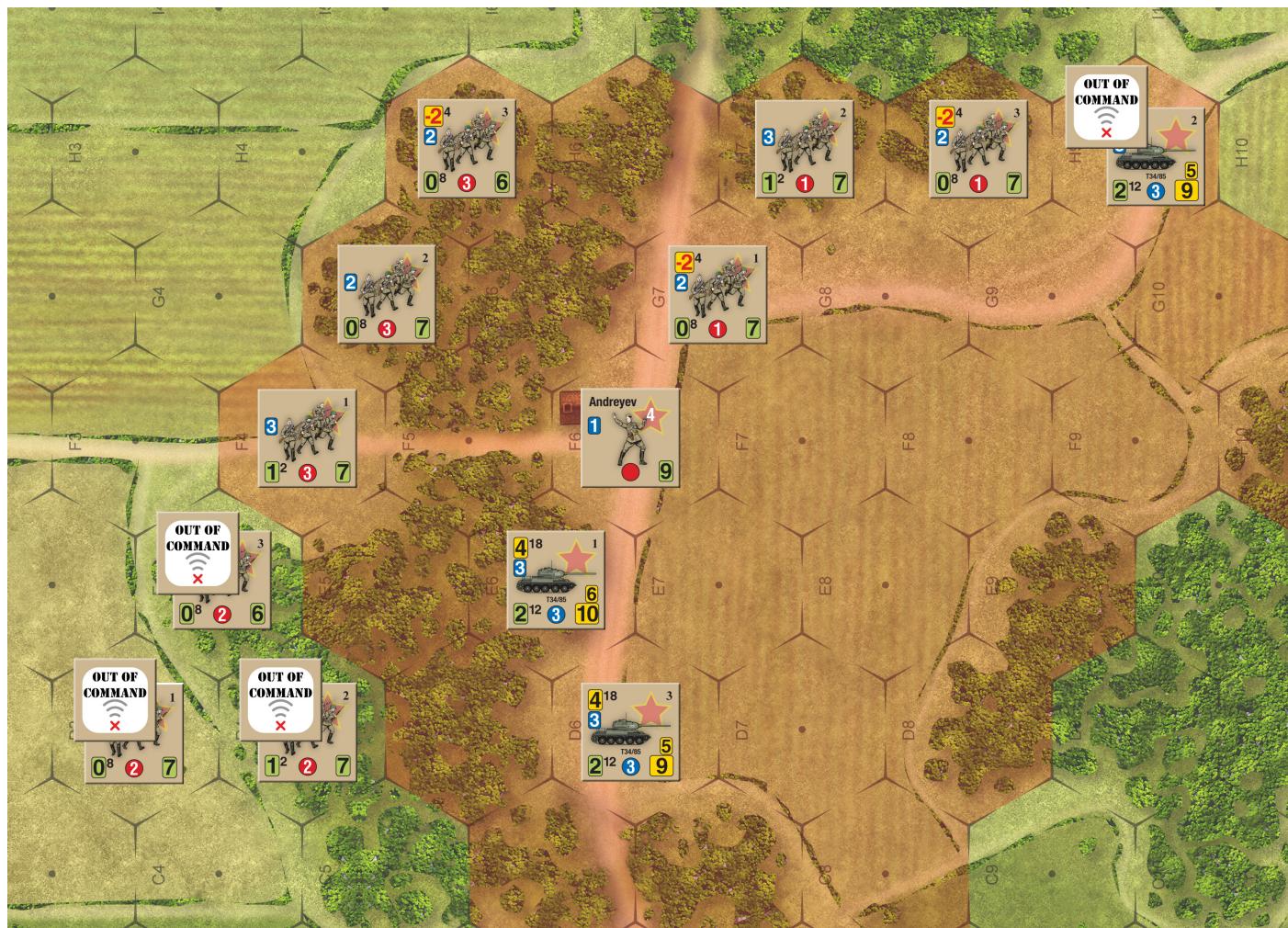


## 24.11 Russian Command & Control

Russian units must be in command to function normally – those out of command are restricted in their ability to conduct certain actions [15.2.2.2]. During Step 3 of the Clean Up Phase of each game turn, the Russian player checks to determine whether his units are in command. In the example below covering non-vehicular units, the 1st company commander Andreyev is located in hex F6 and has a command radius of 4 hexes as denoted by the numerical value in the upper right hand corner of his counter. Currently, all units of the 1st platoon are in command because they are within four hexes and LOS of their leader. Units of the 3rd platoon are also in command because they are within two hexes of Andreyev even though no LOS exists to him (*Note: LOS is not required if a unit is within two hexes of their leader [15.2.2.1.d]*). However, units of the 2nd platoon are not in command because they are neither within 4 hexes and LOS, nor within two hexes of Andreyev. Units of the

2nd platoon are limited in their Actions. Any Small Arms Fire they conduct during a Platoon Activation Segment [11.3a] is limited to an adjacent hex. They cannot assault unless Heroic [10.5.1a] and when maneuvering they must withdraw toward their leader or the FBE.

In this example, tank 2 of the 3rd tank platoon is not in command because it is not within two hexes of another tank of the same platoon, nor is it the same hex with a leader. If it maneuvers, it must take the shortest route possible (in hexes) toward another AFVs of the same platoon. If it happens that it is the only remaining AFV of its platoon then it would maneuver toward the closest platoon of its company. Barring either of those conditions, it would have to maneuver toward the nearest FBE.

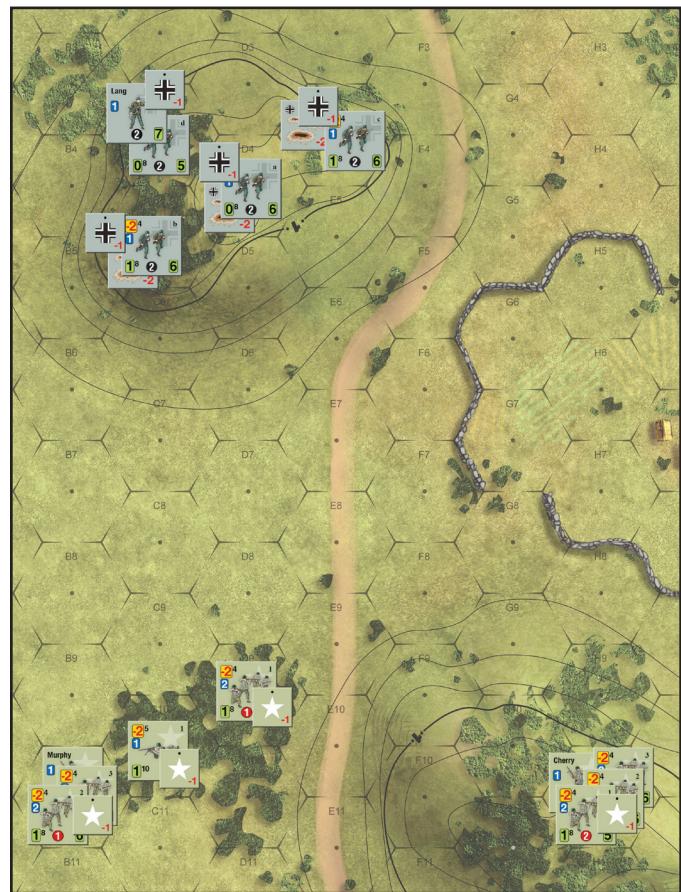




## 25.0 Extended Examples of Play

### 25.1 Infantry and Mortars

**Situation:** Early dawn, October 1944, southwest of Kohlscheid, Germany. A German outpost, dug-in on Hill 192, has been directing mortar fire against the American 2nd Battalion headquarters. The American 1st and 2nd Platoons, Able Co., commanded by Captain Shaw, have been charged with driving the Germans from the hill. The Americans must complete the mission with a Final Score of 30 or less to win. The Final Score is determined by the amount of Time Lapse (minutes to complete the mission) +/- the Casualty Differential in Casualty Points (CP). The first step lost equals four CP, the second two CP, and each subsequent casualty is equal to three CPs.



Positions at Start

**American Plan:** Before dawn, Captain Shaw has maneuvered his units into position as shown. He has ordered 2nd Platoon, under Lt. Cherry, to maneuver through the farm complex to threaten the enemy's left flank drawing his attention and, hopefully, his mortar fire. The 2nd Platoon is to disperse while advancing to minimize the effects of enemy mortar fire. The 1st Platoon, under Lt. Murphy, is to advance as fast as possible and assault the enemy's right while the enemy is occupied with the 2nd Platoon.

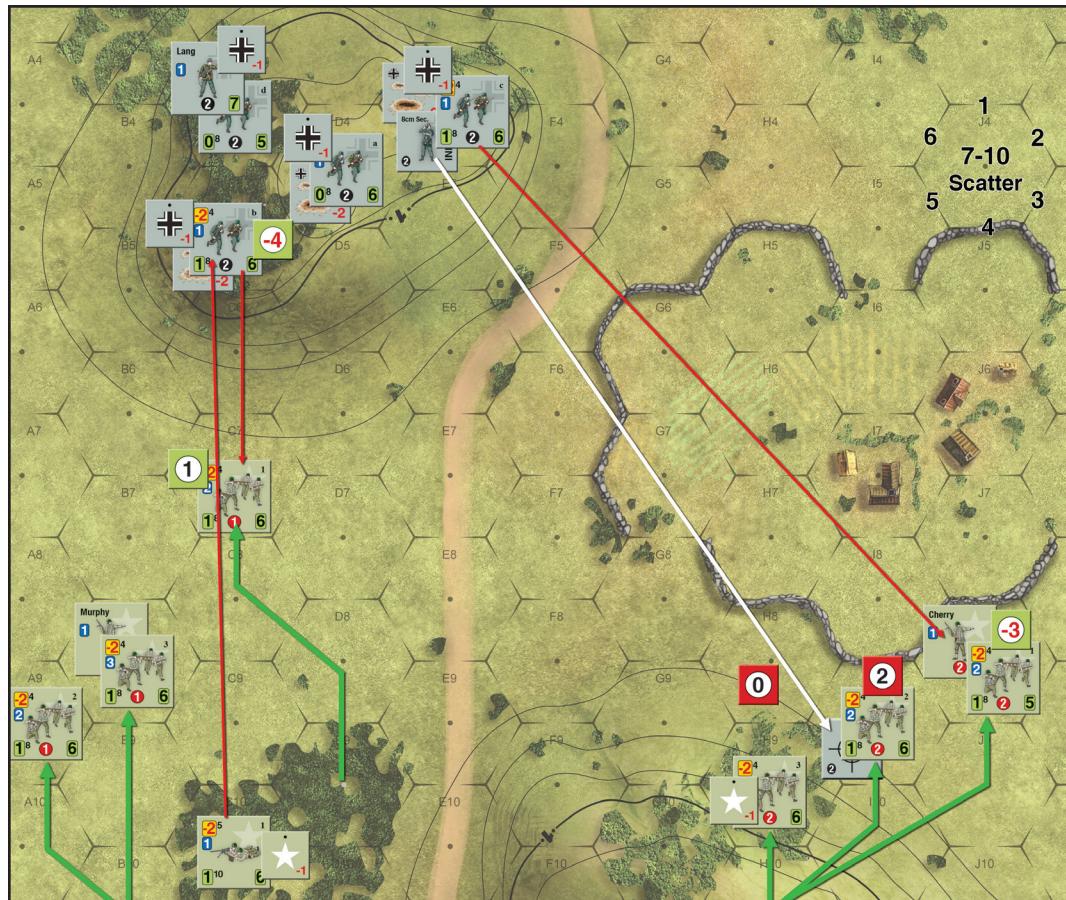
**German Plan:** Feldwebel Lang, although aware of enemy activity in the woods to his front, has no knowledge of the enemy's strength or intent. Assuming an enemy attack, he has instructed his men to engage the enemy at first sight, keeping them at a distance and

disrupting their plans. Also, by committing his mortar early, he hopes to get multiple fires against the Americans before they close.

## Game Turn 1

**Initiative Phase:** The American player begins the mission with the Initiative and has a +2 DRM on all subsequent Initiative die rolls provided he had the Initiative on the previous game turn.

**Activation Phase:** The American player's attempt to conduct a *Coordinated Activation* allowing him to activate two platoons together failed because his Coordinated Activation die roll was < 8. As a result, the American player must activate his platoons individually and chooses to activate the 2nd Platoon commanded by Lt. Cherry first. The 3rd Squad, 2nd Platoon maneuvers forward one hex, expending 1½ MP to enter the woods, maintaining its concealment because it is in cover terrain and not within 3 hexes of an enemy unit [*Note: Units of the active player have a maneuver allowance of 3 MP or 2 hexes whichever is greater*]. The 2nd Squad, 2nd Platoon maneuvers into a position adjacent to the stone wall and loses its concealment because it maneuvered in open terrain within eight hexes and LOS of an enemy unit. Lt. Cherry and the 1st Squad maneuver three hexes to a position behind the stone wall, also losing their concealment because they maneuvered in open terrain within eight hexes and LOS of the enemy. The American player, after completing the activation of the units of the 2nd Platoon, calls for *Reaction* from the German player.



Turn 1 Activation

**Generally, units may only react if an enemy unit conducted an action in their LOS.** The German player reacts by opening fire against the American units maneuvering toward the farm complex.

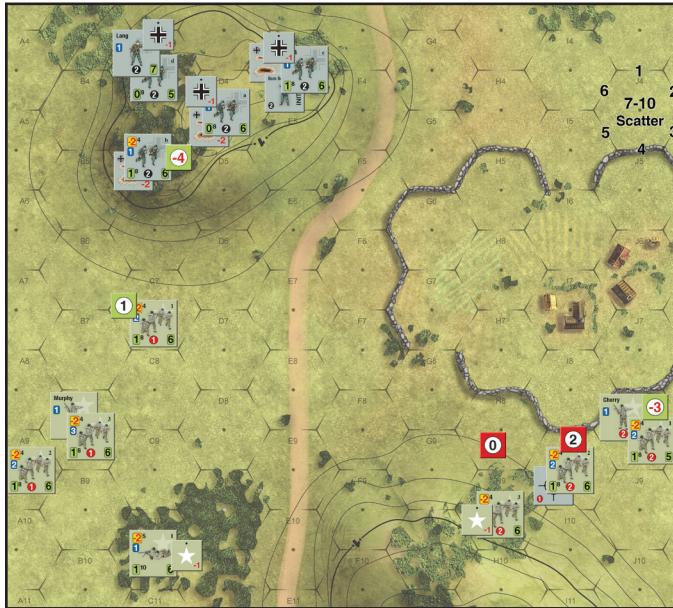
German Section c having LOS to the American 2nd Squad, 2nd Platoon and yet to conduct an action requests a Mortar Fire Action (MFA) against the hex occupied by the American 2nd Squad. The German mortar support consists of a single 8cm mortar section. The German player places a FO marker in the hex with Section c and its corresponding Primary Impact marker and a 2 MDRM marker [*2 for 8cm MV, +0 for open terrain*] in the primary impact hex and makes a subsequent die roll to determine the location of the secondary impact hex. The German player rolls a 6, referring to the scatter diagram on the sector and places a 0 MDRM marker [*0 for 8cm MV*] in the secondary impact hex H8. German Section c subsequently fires against the American 1st Squad and Lt. Cherry, placing a -3 SADRM marker [*1, the firing unit's SAV, -3 range, and -1 for the stone wall*] in the hex. The German player decides not to react with Sections a or b, anticipating actions by the yet un-activated American 1st Platoon and calls for Reaction from the American player. The American player chooses not to react, therefore ending the American 2nd Platoon's activation.

The American player now activates the 1st Platoon led by Lt. Murphy. The MG section, currently supporting 1st Platoon, fires to suppress German infantry Section b and places a -4 SADRM marker [*1 for its SAV, -2 for range, -1 for concealment, and -2 for the IP*] in the target hex. The 1st Squad exits the heavy woods and advances toward German Section b. Lt. Murphy maneuvers with 2nd and 3rd Squads around the woods to the left. The American player ends his activation for the 1st Platoon and calls for Reaction from the German player. The German player reacts with his un-activated Section b and fires against the American 1st Squad, 1st Platoon and places a 1 SADRM marker [*1 for its SAV, -1 for Suppression, and 1 for Proximity Fire*] in the hex. The Concealment marker for Section b is removed because it fired within 3 hexes and LOS of the American 1st Squad, 1st Platoon. The German player chooses not to react with Section a and calls for Reaction from the American player. All of the American units have conducted actions, so the Activation Phase ends and play proceeds to the Fire Resolution Phase.

**Fire Resolution Phase:** Players now make a die roll for each SADRM and MDRM marker in play, adding or subtracting the corresponding SADRM and MDRM markers to get a Final Fire Result for each fire attack. This number is then compared to the Cohesion of the best combat unit in the hex. If the Final Fire Result is greater than the best unit's Cohesion, the unit is disrupted and flipped to its disrupted side [*Note: If there are other units in the hex, and the best*

unit's cohesion is lower than the final fire result, then the best unit is disrupted and flipped to its disrupted side

unit is disrupted, the other units would have to conduct Cohesion Checks and disrupt if they fail]. If the Final Fire Result die roll is ≥ 10, the unit suffers a casualty and disrupts. SADRM markers are removed as each corresponding fire attack is resolved.



Turn 1 Fire Resolution

### The result of the fire attacks are as follows:

- German Section b:** The die roll is 9, -4 for the SADRM marker = 5. There is no effect because the Final Fire Result of 5 is not greater than Section b Cohesion of 6.
- American 1st Squad, 1st Platoon:** The die roll is 6, +1 for the SADRM marker = 7. The 1st Squad is disrupted because the Final Fire Result of 7 is greater than the 1st Squad's Cohesion of 6.
- American 2nd Squad, 2nd Platoon:** The die roll is 8, +2 for the MDRM marker = 10. As a result, the 2nd Squad suffers a casualty and disrupts because the Final Fire Result was greater than or equal to 10. The 2nd Squad is removed from play and an infantry

section (Section b) of the same platoon is drawn at random and placed in the hex disrupted.

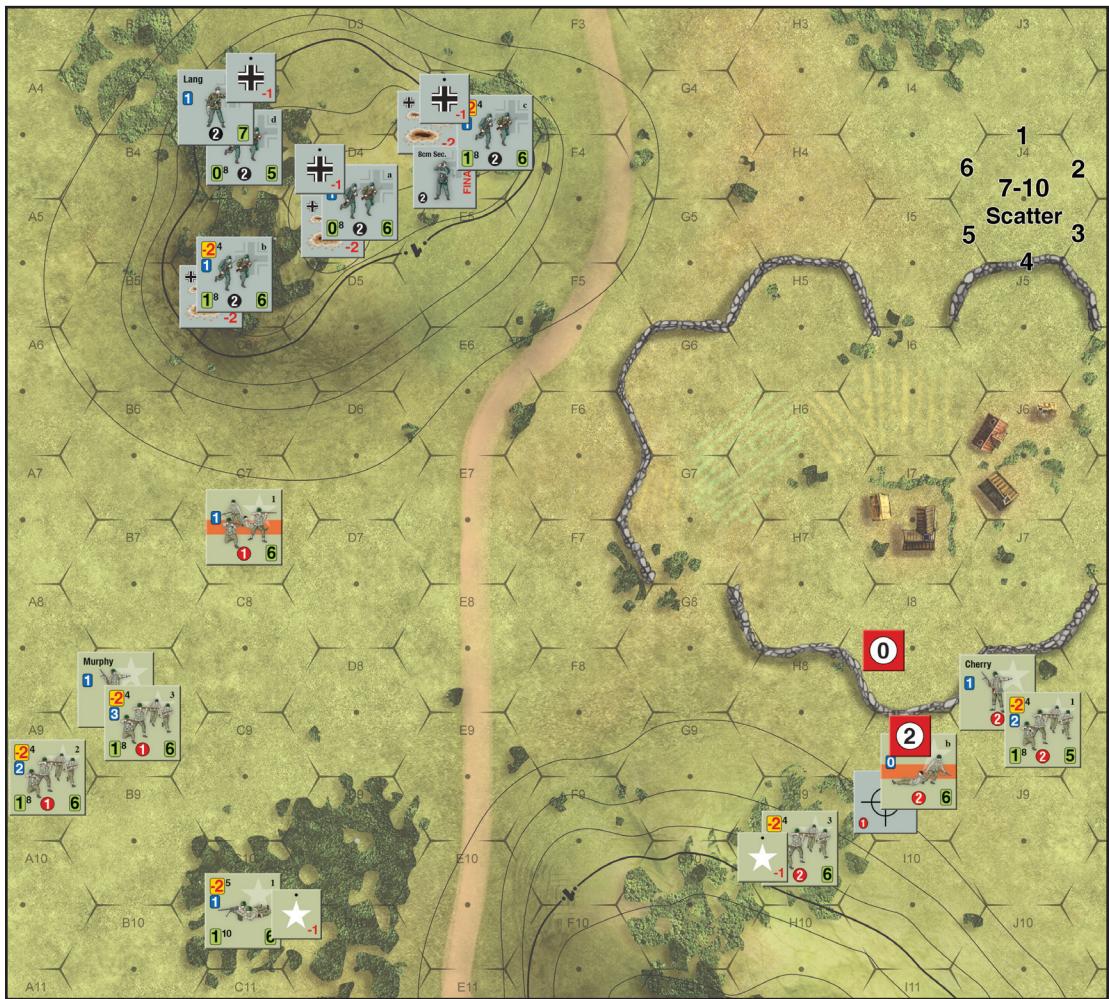
- American 1st Squad, 2nd Platoon:** The die roll is 8, -3 for the SADRM marker and -1 for the platoon leader (because Lt. Cherry's Cohesion is greater than the Cohesion of the 1st Squad) in the hex = 4. As a result, there is no effect on the 1st Squad.

**Assault Phase:** There are no assaults, therefore play proceeds to the Mortar Fire Adjustment Phase.

**Mortar Fire Adjustment Phase:** All MDRM markers are removed. The German player in desperation decides to attempt extending the MFA in the same target hex and flips his FO to its final side. The German player's die roll is 3, resulting in a successful extension. The German player again places a 2 MDRM marker in the primary impact hex and makes a subsequent die roll to determine the location of the secondary impact hex. The German rolls a 1, refers to the scatter diagram on the sector and places a 0 MDRM marker in secondary impact hex I8. Play now moves to the Time Lapse Phase.

**Time Lapse Phase:** The American player (the active player this game turn) makes a die roll and refers to the Time Lapse Table to determine the Time Lapse in minutes for the game turn. The Time Lapse die roll is 7, giving a result of four minutes. The Time Lapse marker is moved to the four minute box on the Time Track.

**At the end of Game Turn 1 the Attacker's Score is 8 [Time Lapse of 4 minutes and 4 Casualty Points due to the step loss suffered by the 2nd Squad, 2nd Platoon].**



End of Game Turn 1

## Game Turn 2

**Initiative Phase:** Both players make Initiative die rolls. The American player rolls a 2 +2 for his Initiative DRM for a 4, and German player's die roll is 8. Having the highest die roll, the German player has the Initiative for game turn 2.

**Activation Phase:** There is no need for the German player to attempt a Coordinated Activation die roll because he only has elements of one platoon. The German player decides to conduct multiple fire actions. German Section **b** fires at the disrupted American 1st Squad, 1st Platoon and places a **1 SADRM [1, for its SAV in open terrain]** in the hex. Section **c** fires at Lt. Cherry and the accompanying 1st Squad and places a **-4 SADRM [1, for its SAV, -3 for range, -1 for the stone wall, and -1 for the hindrance of the MDRM marker]** in the hex. The German player now calls for Reaction from the American player.

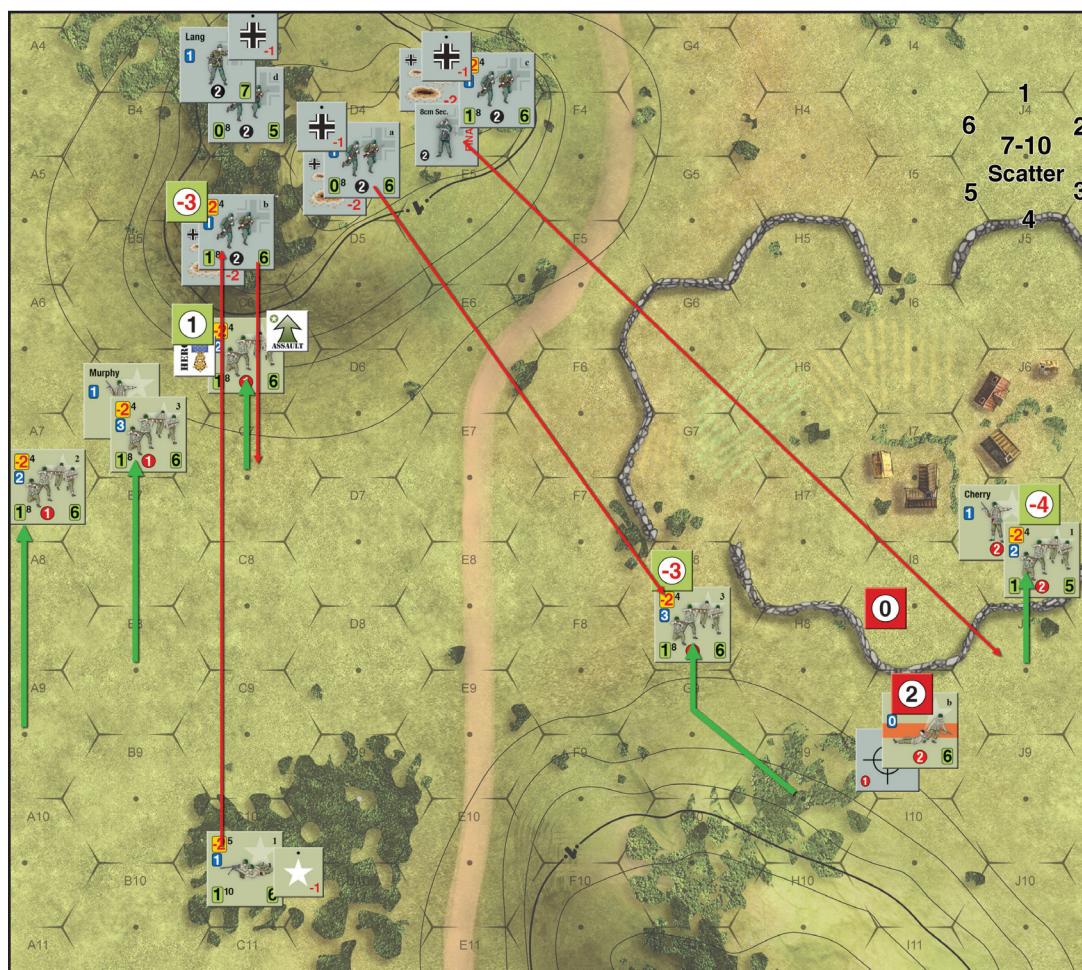
All units of the American player with LOS to German Sections **b** and **c** may now react. The American 2nd and 3rd Squads, 1st Platoon along with Lt. Murphy maneuver two hexes toward Hill 192 [*Note: The maneuver allowance for reacting units is 2 MP or 1 hex which ever is greater*]. The American disrupted 1st Squad, 1st Platoon attempts to recover. It's unmodified recovery die roll is 10 and as a result becomes Heroic (*when the unmodified recovery die roll = 10, a non-vehicular unit becomes Heroic*). The American player flips the 1st Squad, 1st Platoon to its undisrupted side and places a Heroic marker on the unit.

Upon becoming Heroic, Heroic units must immediately maneuver and assault the closest enemy unit. The American 1st Squad maneuvers to assault German Section **b**, the closest enemy unit, ending its maneuver *temporarily* in hex C6 allowing the German player to react in the subsequent call for Reaction. An American Assault Arrow marker is temporarily placed on the American 1st Squad, 1st Platoon. Once all reaction is completed, the American 1st Squad, 1st Platoon will be placed in hex with German Section **b** and the hex is then marked with an American Assault marker showing that he is the attacker. The American MG section reacts by firing at German Section **b** and places a **-3 SADRM marker [1, for its SAV, -2 for range, -2 for the IP]** in the hex. The American 3rd Squad, 2nd Platoon maneuvers 2 hexes toward the entry of the farm compound. The American 1st Squad along with Lt. Cherry maneuver over the stone wall to the hex behind the farmhouse. The disrupted American Section **b** under mortar fire attempts to withdraw but must suffer the MFA upon exit. The MFA die roll is  $5 + 2$  MDRM = 7. The Final Fire Result of 7 is  $> 6$ , the American section's Cohesion, resulting in another disruption causing a casualty (*disrupted units suffering a subsequent disruption suffer a casualty*) and therefore is removed from play. The American player now has lost two combat steps. Having no further reaction, the American player calls for Reaction from the German player. The German player reacts with Section **a** and fires against the American 3rd Squad, 2nd Platoon and places a **-3 SADRM [0 for its SAV, -3 for range]** in the hex. The German player now calls for reaction from the American player. Neither side

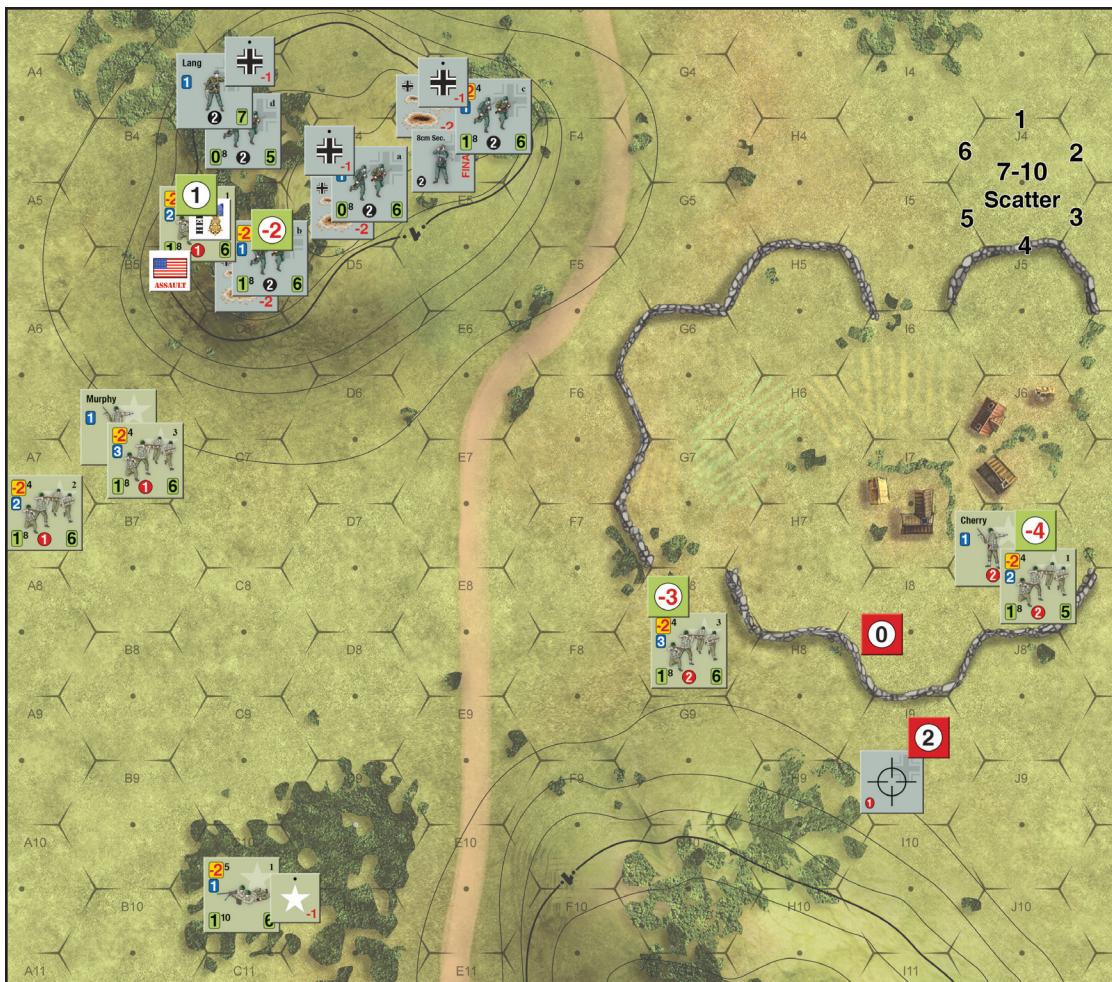
has any additional reaction so the German Activation Cycle ends. The American 1st Squad, 1st Platoon is now placed in the hex with the German Section **b** and the hex is marked with an American Assault marker showing that he is the attacker. Play now proceeds to the Fire Resolution Phase.

**Fire Resolution Phase:** The result of the fire attacks are as follows:

- **American 1st Squad, 1st Platoon:** ...is now Heroic with a Cohesion of 8. The die roll is 7, +1 for the SADRM marker = 8. There is no effect as the Final Fire Result is equal to but not greater than the Heroic unit's Cohesion of 8.
- **German Section b:** The die roll is 9, **-3** for the SADRM marker = 6. Therefore Section **b** disrupts because the Final Fire Result of 6 is greater than Section **b**'s Cohesion of 6.



Turn 2 Activation

*Turn 2 Fire Resolution*

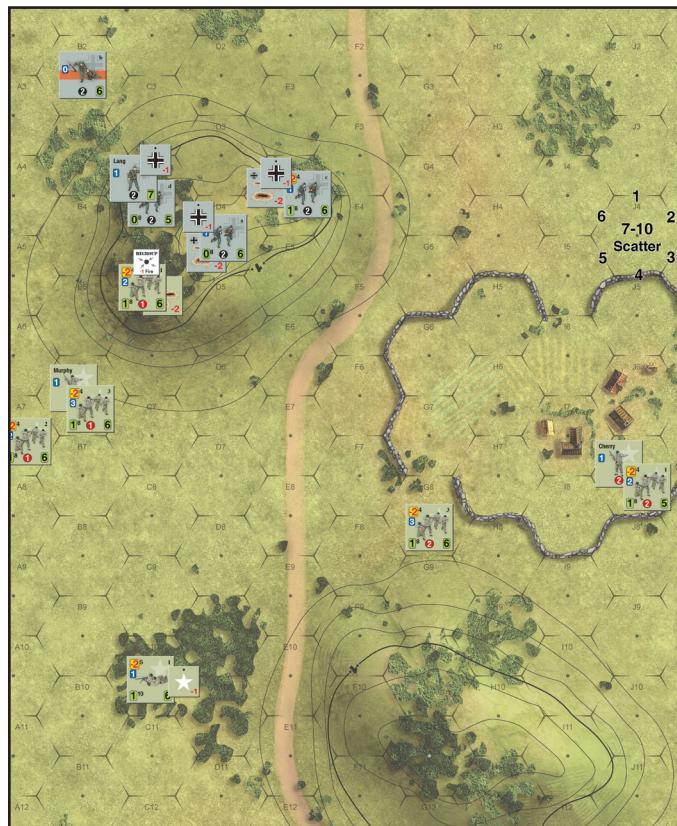
- American 3rd Squad, 2nd Platoon:** The die roll is **5 -3** for the SADRM marker = **2**. There is no effect as the Final Fire Result of **2** is less than the 3rd Squad's Cohesion of **6**.
- Lt. Cherry and the American 1st Squad:** The die roll is **6 -4** for the SADRM marker = **2**. There is no effect as the Final Fire Result of **2** is less than the 1st Squad's Cohesion of **5**.
- As all fire attacks have been resolved, play now moves to the Assault Phase.

**Assault Phase:** The Heroic American 1st Squad, 1st Platoon is the attacker in the assault with the disrupted German Section **b**. The German Total Assault Value is **2** [Section **b**'s Assault Value of **0**, +**1** for the IP and +**1** for the major contour crossed by the American 1st Squad]. The American 1st Squad's Total Assault Value is **4** [1st Squad's Assault value of **2**, +**2** for the Cohesion Differential (**8-6=2**) between the American 1st Squad and the disrupted German Section **b**]. The resulting final Assault DRM is **+2** [**4-2=2**]. The American's assault die roll is **5**, +**2** assault DRM = **7**. The American 1st Squad wins the assault, now occupying the hex with the IP. The American unit's Heroic marker is removed and the 1st Squad is marked with a Regrouping marker. German Section **b** must retreat 2-4 hexes and conduct a Cohesion Check. The German section retreats to hex **B2**, and passes its Cohesion Check on a die roll of **4**. Play now proceeds to the Mortar Fire Adjustment Phase.

*Turn 2 Assault Resolution*

**Mortar Fire Adjustment Phase:** All MDRM markers are removed. The German player may not extend his MFA a second time and therefore removes the FO and Primary Impact markers and places them in the Mortar Support Pending Box on the Game Tracks player aid. [The German player may attempt to regain mortar support in subsequent game turns and would do so on a die roll  $\leq 4$ .] Play now moves to the Time Lapse Phase.

**Time Lapse Phase:** The American player's Time Lapse die roll is 4, resulting in a Time Lapse of three minutes. The Time Lapse marker is moved to the seven minutes box on the Time Track [4 for the first game turn and 3 for the second].



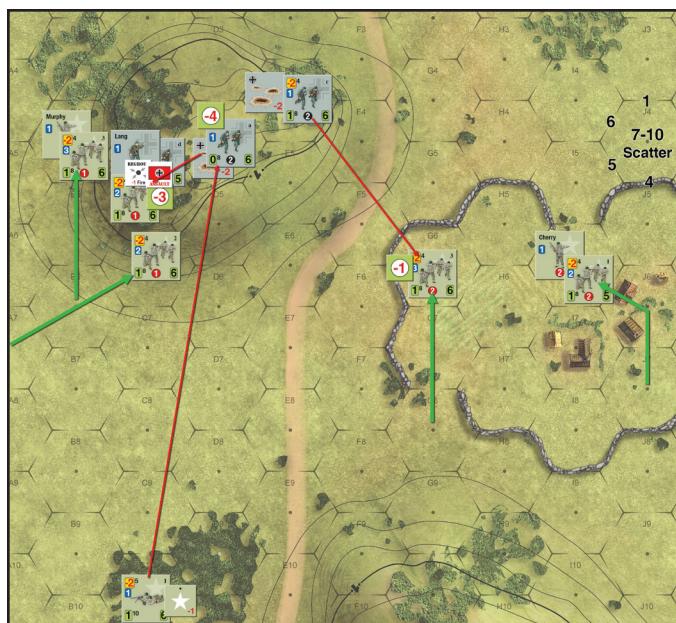
End of Game Turn 2

**At the end of Game Turn 2 the Attacker's Score is 13 [7 minutes +6 for Casualty Points due to loss of the 2 combat steps of the eliminated 2nd Squad, 2nd Platoon].**



### Game Turn 3

**Initiative Phase:** Both players make Initiative die rolls. The American player no longer has the +2 Initiative DRM because the German player had the Initiative the previous game turn. The American player's die roll is 6, and German player's die roll is 5 [The German player has no Initiative DRM as stated in the mission setup]. The American player wins the Initiative, 6 to 5.



Turn 3 Activation

**Activation Phase:** The American player's attempt to conduct a Coordinated Activation—allowing him to activate two platoons together—is successful this time because his Coordinated Activation die roll is  $\geq 8$ . The American player conducts a fire action with his MG section against German Section **a**, and places a -4 SADRM [*1 for its SAV, -3 for range, -2 for the IP*]. The American 1st Squad, 1st Platoon attempts to re-group but fails. The American 2nd Squad, 1st Platoon maneuvers to a position behind the 1st Squad, and Lt. Murphy and the 3rd Squad maneuver to the left of the 1st Squad. The American player now maneuvers 3rd Squad, 2nd Platoon into a position along the stone wall, and Lt. Cherry and the 1st Squad maneuver to the right around the farmhouse. Having completed all of his actions, the American player calls for Reaction from the German player.

The German player reacts by conducting a fire action with German Section **a** against the American 1st Squad, 1st Platoon and places a -3 SADRM marker [*0 for its SAV, -1 because it is Suppressed, -2 for the IP*] on the American squad. German Section **c** fires at the American 3rd Squad, 2nd Platoon as it maneuvers along the wall and a -1 SADRM marker [*1 for its SAV, -1 for range, and -1 for the wall*] is placed on the American 3rd Squad. Finally, Lt. Lang, along with Section **d**, assault the American 1st Squad, 1st Platoon to drive them out of the IP. [Note: German Section **b** cannot react (attempt to recover) because it did not see an enemy unit conduct an action in its LOS]. The German player now calls for Reaction from the American player. The American player has no further reactions, therefore the Activation Phase ends.

**Fire Resolution Phase:** The result of the fire attacks are as follows:

- American 1st Squad, 1st Platoon:** The die roll is 10, -3 for the SADRM marker = 7 which is greater than the 1st Squads Cohesion, causing it to disrupt and the Regrouping marker is removed [13.3.2].
- American 3rd Squad, 2nd Platoon:** The die roll is 6, -1 for the SADRM marker = 5 which is less than the squad's Cohesion, and therefore has no effect.

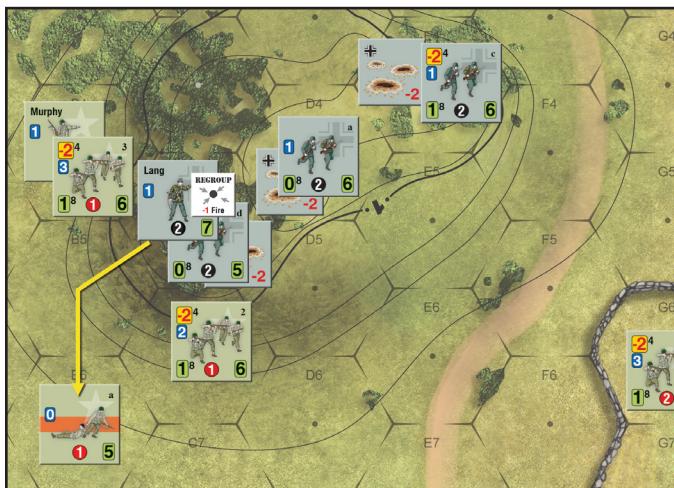


Turn 3 Fire Resolution

- German Section a:** The die roll is 9, **-4** for the SADRM marker = 5 which is less than the section's Cohesion and therefore has no effect. This ends the Fire Resolution Phase.

**Assault Resolution Phase:** Lt. Lang and German Section d are the attacker in the assault against the disrupted American 1st Squad, 1st Platoon.

The Total Assault Value for the German force is **2 [+1 for Section d and +1 for Lt. Lang]**. The American force's Total Assault Value is **3 [+1 for 1st Squad's Assault Value, +1 for Cohesion Differential, +1 for the IP]**. In this case, the Final Assault DRM is **-1 [2 -3]**, which is the net Assault Value between both forces.



Turn 3 Assault Resolution

The German's assault die roll is **8 - 1 = 7**, resulting in the Germans re-taking the position. The German units are marked with a Regrouping marker and the American 1st Squad must retreat 2 to 4 hexes and conduct a Cohesion Check. The American 1st Squad retreats and fails its Cohesion Check and therefore suffers a casualty, because it was already disrupted—and remains disrupted. An infantry section (Section a) of the same platoon is drawn at random and placed in the hex in a disrupted state. Lt. Lang conducted his Leader Loss Check and passed.

**Mortar Fire Adjustment Phase:** The German player, desperate for help, must roll  $\leq 4$  to receive his mortar support. The German player's die roll is 6, and therefore fails to receive mortar support.

**Time Lapse Phase:** The American player's Time Lapse die roll is 9, resulting in a Time Lapse of five minutes. The Time Lapse marker is moved to the 12 minute box on the Time Track [*4 for the first game turn, 3 for the second, and 5 for the third*].



End of Game Turn 3

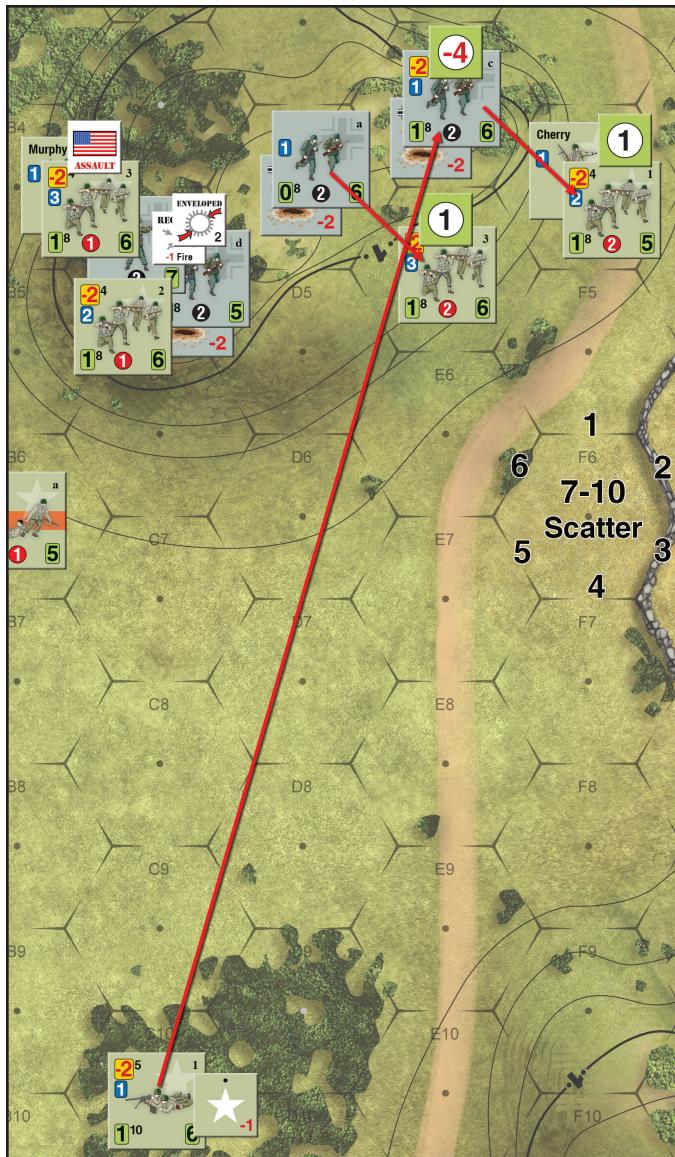
At the end of Game Turn 3 the Attacker's Score is **21** [*12 minutes, +9 Casualty Points, due to loss of a total of 3 American combat steps, including the reduction of 1st Squad, 1st Platoon this game turn*]. Casualties are mounting for the American player.

## Game Turn 4

**Initiative Phase:** Both players make Initiative die rolls. This game turn the American player has a +2 Initiative DRM because he had the Initiative the previous game turn. The American player's die roll is 6 +2 for Initiative DRM = 8, and German player's die roll is 7. The American player wins the Initiative 8 to 7.

**Activation Phase:** The American player's attempt for Coordinated Activation is unsuccessful this time as his die roll  $\leq 8$ . The American player must therefore activate his platoons sequentially. The American player chooses to activate the 1st Platoon first. The American player conducts a fire action with his MG section against German Section c, and places a **-4 SADRM** [*1 for its SAV, -3 for range, -2 for the IP*]. Next, the 2nd Squad, 1st Platoon assaults the position held by Lt. Lang and German Section d from the front. Lt. Murphy and 3rd Squad assault from the rear in order to *envelop* the German position. An Envelopment marker and an American Assault marker is placed in the hex [*the defenders suffer envelopment because the American units entered the hex occupied by German Section d from two non-adjacent hex sides*]. The American player now attempts to recover Section a, 1st Platoon. His recovery die roll is 7 which is  $>$  than the section's Cohesion of 5; therefore the attempt fails and the section remains disrupted. As there are no other 1st Platoon units to activate, the American player calls for *Reaction* from the German player.

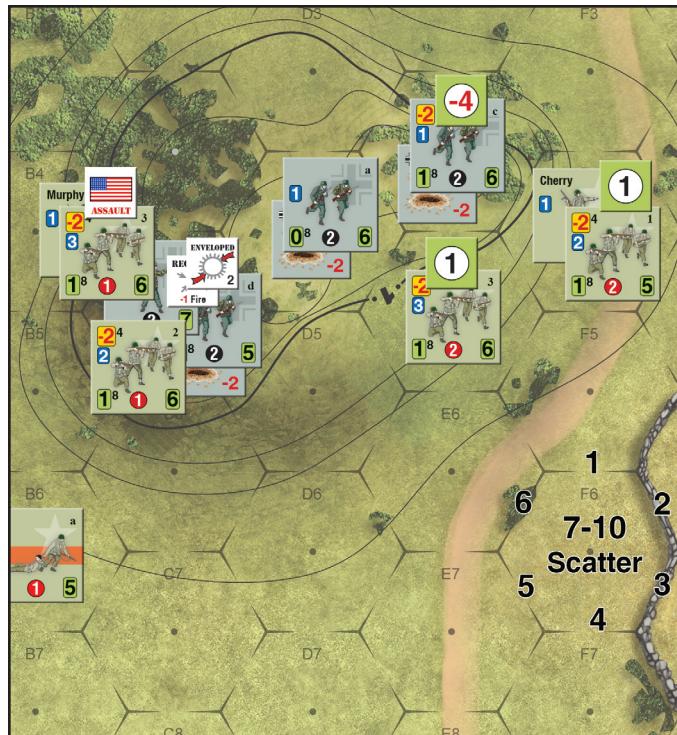




Turn 4 Activation

The German player chooses not to react with his Sections **a** and **c** and instead holds their fire in anticipation of the pending maneuver by the American 2nd Platoon. [Note: German Section **d** cannot react because it's in an assault hex. Again, Section **b** cannot react because it did not see an enemy unit conduct an action in its LOS]. Therefore the German player has no reaction and calls for Reaction from the American player. The American and then the German player pass on any further reaction.

The American player now activates 2nd Platoon. He maneuvers the 3rd Squad, and Lt. Cherry and the 1st Squad, to the base of the hill. The American player calls for Reaction from the German player. The German player reacts with Section **a**, which fires at the American 3rd Squad and places a 1 SADRM marker [*0 for its SAV, +1 for Proximity Fire*] on the American 3rd Squad. The German player now reacts with Section **c**, which fires at the American 1st Squad and places a 1 SADRM marker [*1 for its SAV, -1 for Suppression, +1 for Proximity Fire*] on the American 1st Squad. As neither player has any further reactions, the Activation Phase ends.



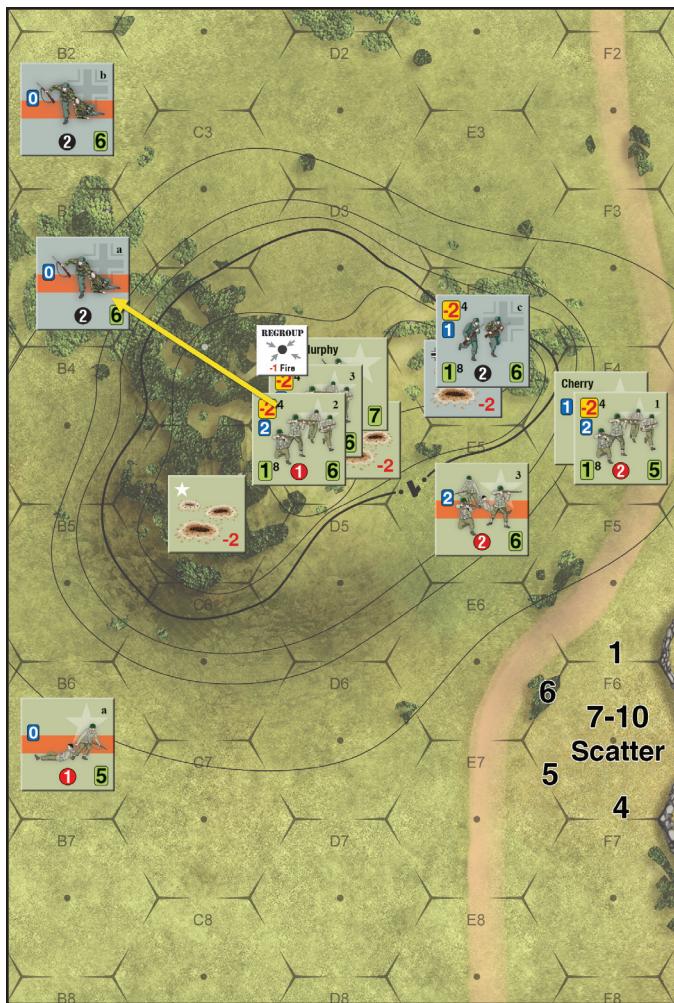
Turn 4 Fire Resolution

**Fire Resolution Phase:** The result of the fire attacks are as follows:

- **American 1st Squad, 2nd Platoon:** The die roll is 3, +1 for the SADRM marker and -1 [because Lt. Cherry Cohesion is > the 1st squad's Cohesion] = 3, which is < the squad's Cohesion and therefore has no effect.
- **American 3rd Squad, 2nd Platoon:** The die roll is 6, +1 for the SADRM marker = 7, which is > the squad's Cohesion causing it to disrupt.
- **German Section c:** The die roll is 3, -4 for the SADRM marker = -1, which is < the section's Cohesion and therefore has no effect. This ends the Fire Resolution Phase.

**Assault Resolution Phase:** The Americans are the attacker in the assault against Lt. Lang and German Section **d**. The German Total Assault Value is +4 [*1 for the Section d's Assault Value, +1 for Lt. Lang, +1 for the hill hex, +1 for the IP*]. The American Total Assault Value is +10 [*2 for 2nd Squad's Assault Value, +3 for 3rd Squad's Assault Value, +1 for platoon leader Lt. Murphy, +2 for the Elevation marker, +1 for Cohesion Differential (6 – 5) and +1 because the Germans are marked with a Regrouping marker*]. The Final Assault DRM is 6 [*American net Assault Value of 10 minus the German net Assault Value of 4*]. Although the American final Assault DRM is 6, the maximum allowed is 4.

The American assault die roll is 10, +4 for the assault DRM = 14. The German units must retreat four hexes and suffer a casualty. German Section **d** is eliminated because it is a single step unit, and Lt. Lang is removed from play due to suffering a casualty and is placed on the Time Track in the box equal to 19 minutes. [The current Time Lapse of 12 minutes and 7 minutes representing the time required for the platoon to designate a new platoon leader]. Lt. Murphy successfully passes his Leader Loss Check. Due to the maximum assault result of 14, the American units may advance one hex and—if that hex contains enemy units—they would immediately resolve another subsequent assault.

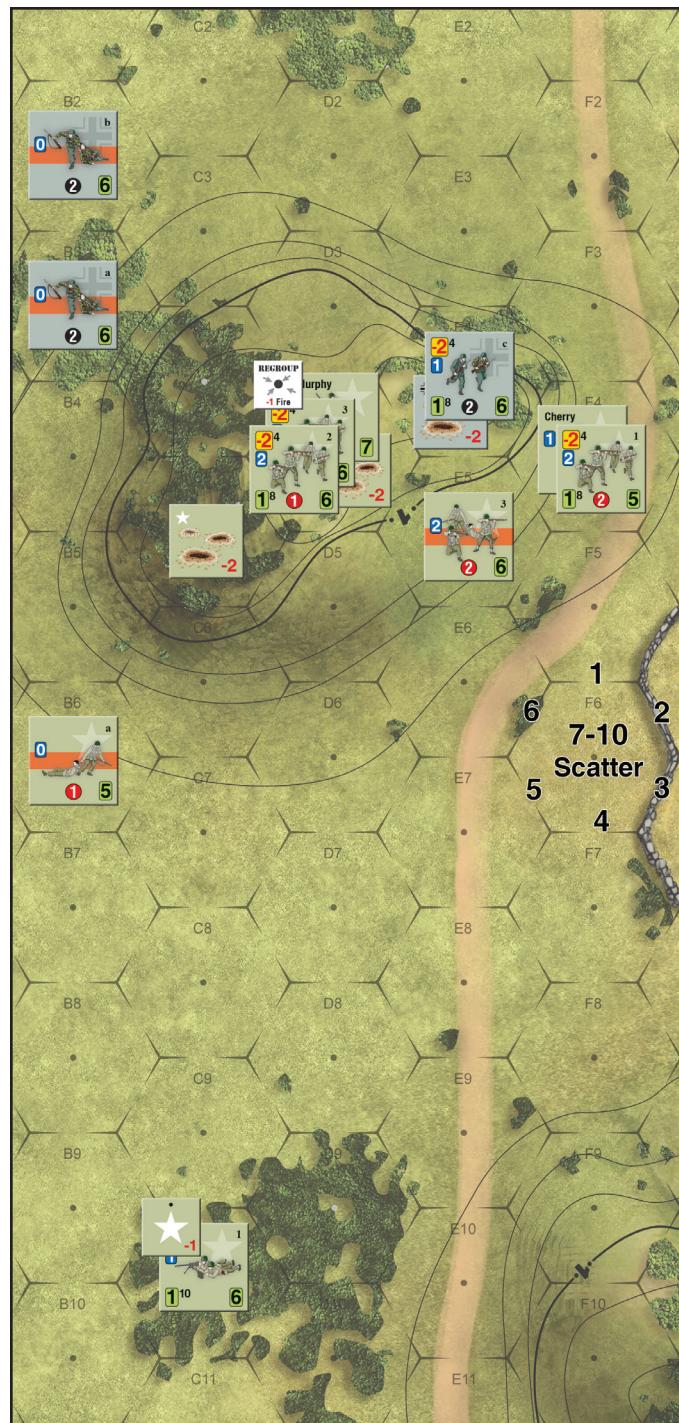


Turn 4 Assault Resolution

**Continuation of Assault Resolution Phase:** The American player chooses to advance into hex D4 and assault German Section a. The German Total Assault Value is 2 [1 for its Assault Value, +1 for the IP]. The American Total Assault Value is 6 [2 for 2nd Squad's Assault Value, +3 for 3rd Squad's Assault Value, +1 for Lt. Murphy]. The American's assault DRM is 4 [6 – 2]. The American's Assault die roll is 4, +4 for the Assault DRM = 8. The German section must retreat two to four hexes and conduct a Cohesion Check, which it fails and disrupts. The American units are marked with a Regrouping marker. This ends the Assault Resolution Phase.

**Mortar Fire Adjustment Phase:** The German player makes one last attempt for mortar support. His die roll must be  $\leq 4$  to be successful. Unfortunately, his die roll is 9, therefore failing to receive mortar support once again.

**Time Lapse Phase:** The American player's Time Lapse die roll is 7, resulting in a Time Lapse of four minutes. The Time Lapse marker is moved to the 16 minute box on the Time Track [4 for the first game turn, 3 for the second, 5 for the third and now 4 for the fourth].



End of Game Turn 4

At the end of Game Turn 4 the Attacker's Score is 22 [16 minutes, +6 American Casualty Points].



## 25.2 Armor

The following example of play not only demonstrates how the armor system works in the LHY but also how the system models actual armor tactics used during WW2. These include tactical concepts such as Enfilade Fire, Fire and Maneuver (i.e., leap frogging), Halt & Fire, Shoot & Scoot and Reverse maneuvers to avoid enemy fire.

**Situation:** January 5th, 1945. 1st Tank Platoon of CCB of the 4th Armored Division, commanded by Lt. Stephens, has paused briefly to observed two bridges over the Saar River in eastern Lorraine. After failing to see any enemy activity (the Germans set up Hidden, as indicated by the white 4-cornered boxes), Lt. Stephens formalizes his plan for the approach to the village.

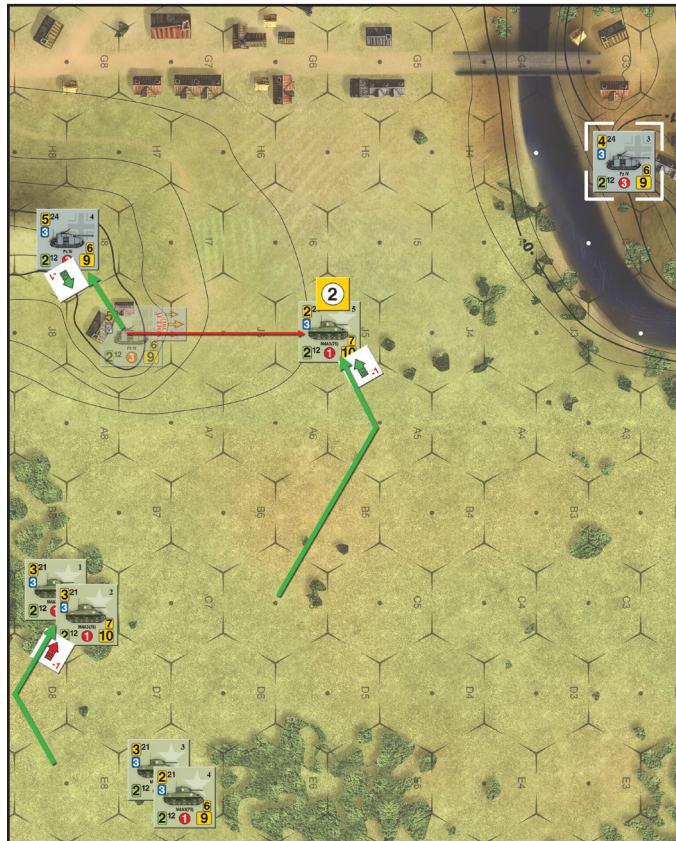


Positions at Start

### Turn 1

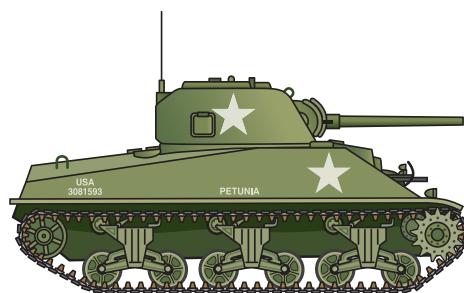
**Initiative:** The American player has the Initiative at start.

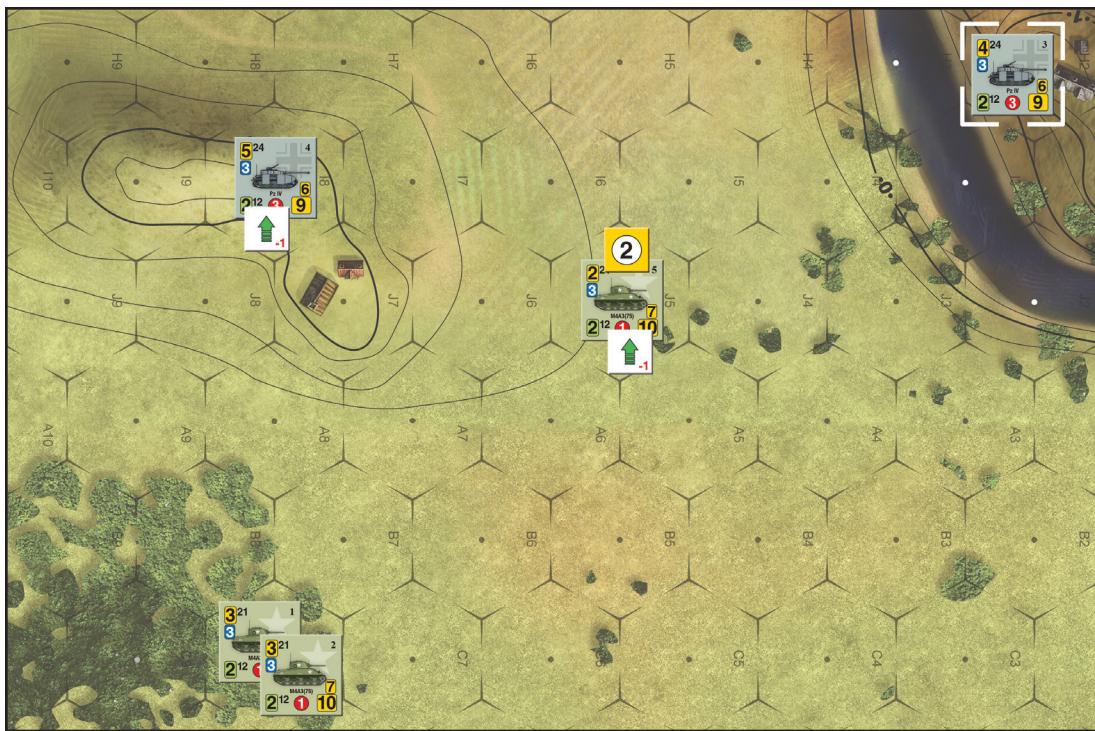
**Activation:** Lt. Stephens sends Sherman #5 ahead to reconnoiter the village and Shermans #1 and #2 to maneuver and take up a position in the woods to their front. Stephens' Sherman #3 and #4 hold in place, providing over-watch for the maneuvering tanks. The American player calls for Reaction.



Turn 1 Activation

German Pz IV #4 will lose its hidden status because Sherman #5 ended its maneuver within 3 hexes of the hex it occupies [17.9b], and therefore decides to react and conduct a Shoot & Scoot action [10.4.2] against Sherman #5 and reverse into hex I8 to avoid fire from Shermans #3 and #4. A **2 ATDRM [5 ATV, -2 for the Shoot & Scoot to an adjacent hex, -1 for the motion target]** marker is placed on Sherman #5. The German player calls for reaction. Both players pass and play moves to the Fire Resolution Phase.





### Fire Resolution

**Fire Resolution:** The German player makes a die roll to resolve the fire attack against Sherman #5.. The die roll is 6, +2 for the ATDRM marker for a Final Fire Attack Result of 8. There is no effect, because the result is less than or equal to the Sherman's AV of 10.

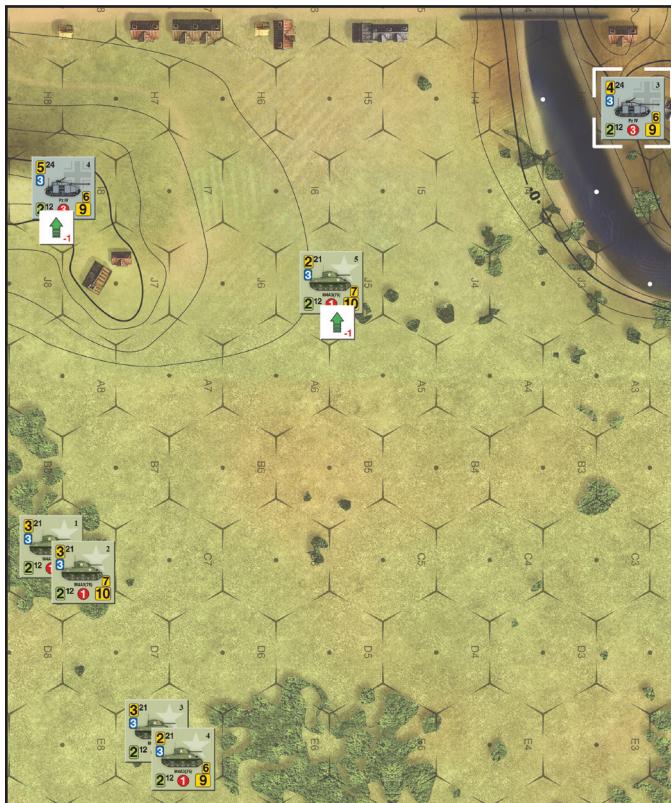
**Time Lapse:** The American player's die roll is 4, resulting in a Time Lapse of three minutes.



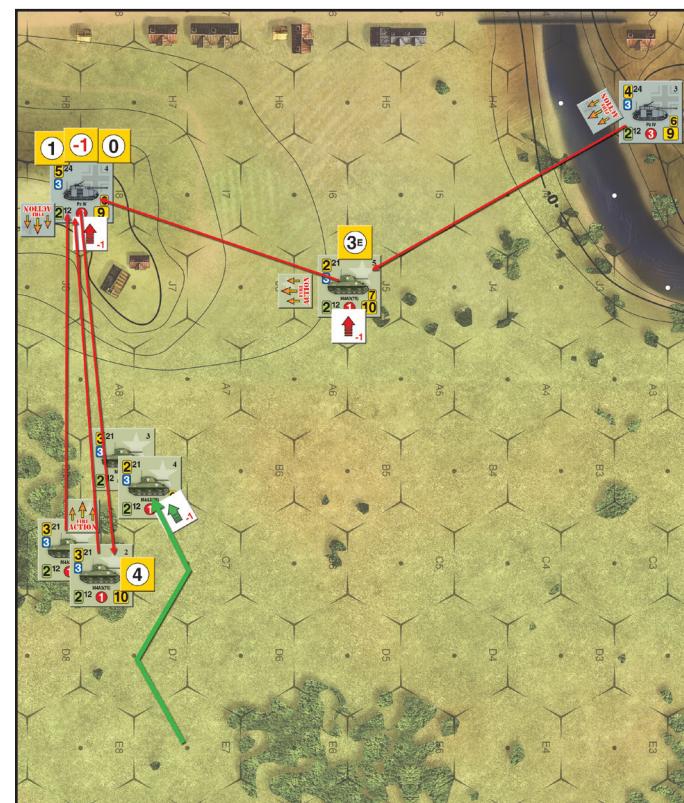
### Turn 2

**Initiative:** The German player wins the Initiative.

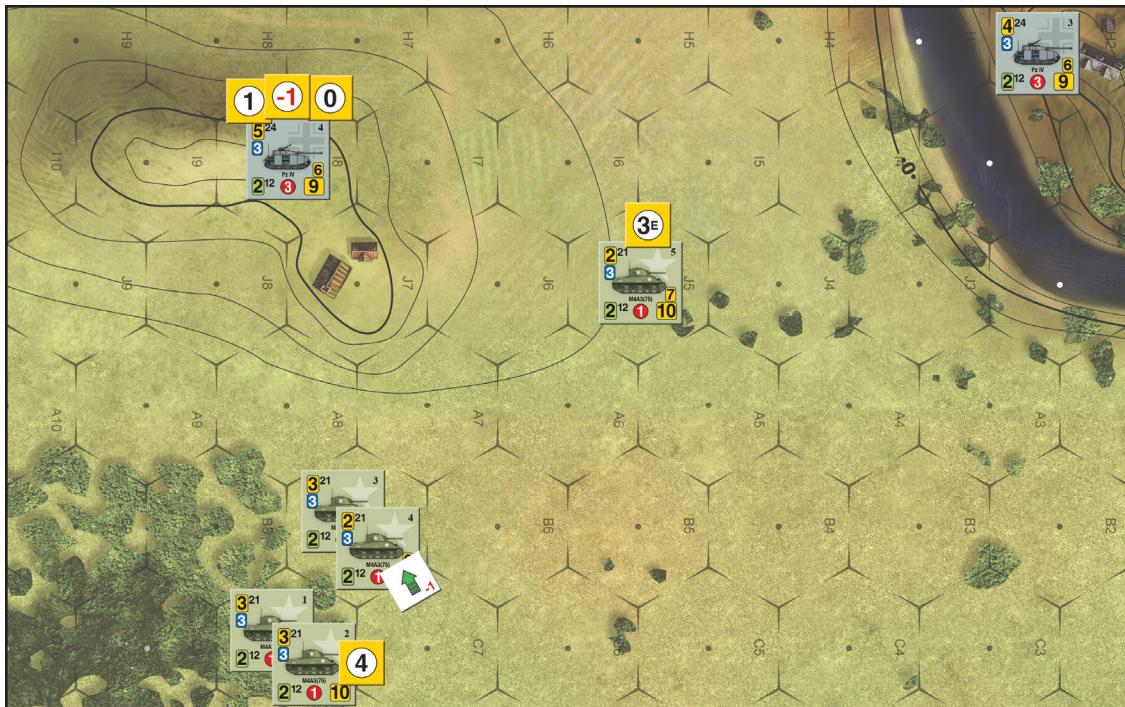
**Activation:** Because he has the Initiative, the German player decides to conduct a Halt & Fire action [10.4.3] with Pz IV #4, in its current hex, against Sherman #2 and a 4 ATDRM [5 ATV, -1 for Halt & Fire from its current hex] marker is placed on Sherman #2. The German player calls for reaction.



Situation at the End of Game Turn 1



Turn 2 Activation



### Fire Resolution

Sherman #1 reacts and fires back at Pz IV #4 and a **1 ATDRM [3 ATV, -1 for firing at unit on a higher level, -1 for motion target]** marker is placed on Pz IV #4. Sherman #2 reacts and also fires at Pz IV #4 and a **0 ATDRM [3 ATV, -1 for Suppression, -1 for firing at unit on a higher level, -1 for motion target]** marker is placed on Pz IV #3. In addition, Sherman #5 reacts and fires at Pz IV #4 and a **-1 ATDRM [2 ATV, -1 for firing at unit on a higher level, -1 for Motion firer, -1 for motion target]** marker is placed on Pz IV #3. The American player now calls for Reaction from the German player. The German player reacts by revealing the hidden Pz IV #3 and conducts Enfilade Fire [11.1.1] against the Sherman #5 and a **3e ATDRM [4 ATV, -1 for motion target]** marker is placed on Sherman #5. The German player now calls for reaction from the American player. Lt. Stephens and Sherman #3 and #4 react, and instead of firing, maneuver into hex B7.

### Fire Resolution:

- Sherman #2:** The die roll is 1, +4 for the ATDRM marker for a Final Fire Attack Result of 5. There is no effect, because the result of 5 is less than or equal to the Sherman's AV of 10.
- Sherman #5:** The die roll is 5, +3 for the Enfilade ATDRM marker for a Final Fire Attack Result of 8. The Sherman is destroyed because the result of 8 is greater than the Sherman's AEV of 7.
- Pz IV #4:** A single die roll is made for each ATDRM marker. The first die roll is 5, +1 for its corresponding ATDRM marker for a Final Fire Attack Result of 6; the second die roll is 8, -1 for its corresponding ATDRM marker for a Final Fire Attack Result of 7; and the third die roll is 3, +0 for its corresponding ATDRM for a Final Fire Attack Result of 3. Only the single most detrimental result, 7 in this case, is used and all other results are ignored. There is no effect because the detrimental result was less than or equal to Pz IV #4's AV of 9.

**Time Lapse:** The American player's die roll is 6, resulting in a Time Lapse of four minutes for a total Time Lapse of seven minutes through game turn 2.

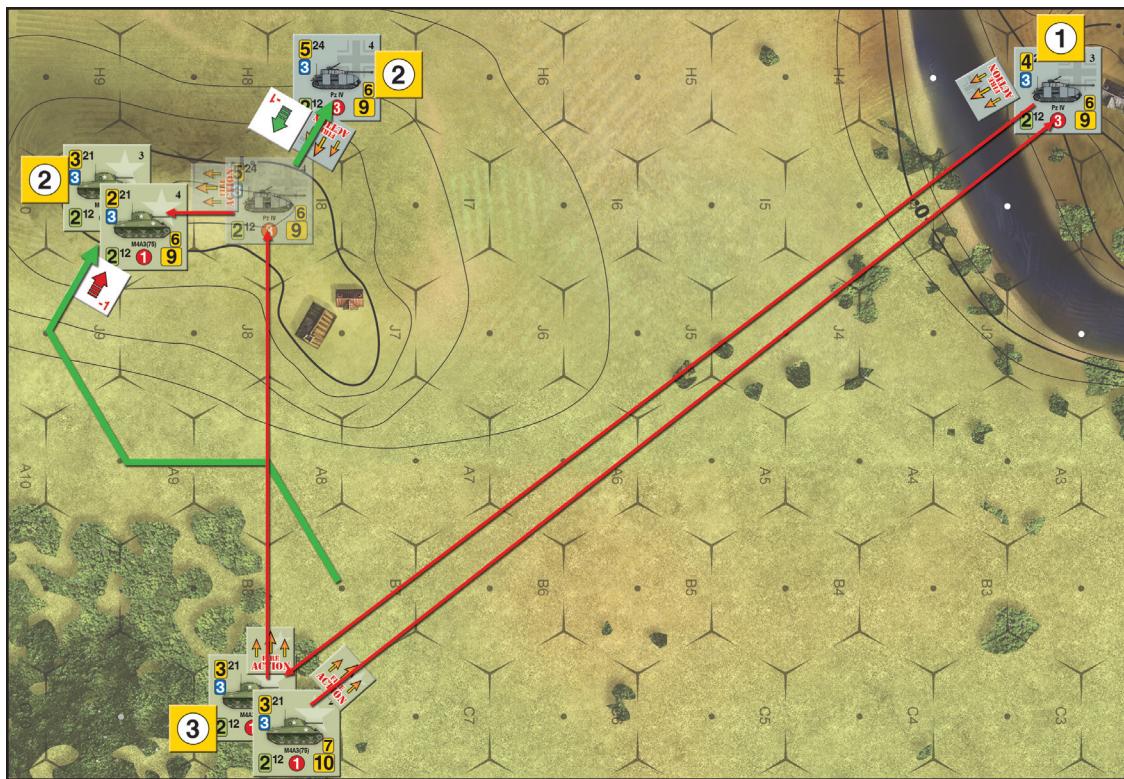


Situation at the End of Game Turn 2

### Turn 3

**Initiative:** The American player wins the Initiative.

**Activation:** Regaining the Initiative, Lt. Stephens instructs Shermans #1 and #2 to suppress the two German tanks while he and Shermans #3 and #4 maneuver to turn the enemy's flank. Sherman #1 fires at Pz IV #4 on the hill to his front and a **2 ATDRM [3 ATV, -1 for firing against a target at a higher level]** marker is placed on Pz IV #4. Sherman #2 fires at Pz IV #3 on the hill to his right and a **1 ATDRM [3 ATV, and -1 for firing against a target at a higher level, or -1 for the rural building; the TEMs are not cumulative]** marker is placed on Pz IV #3. Shermans #3 and #4 maneuver left to a position on the hill in an attempt to flank Pz IV #4 and the American player calls for Reaction.



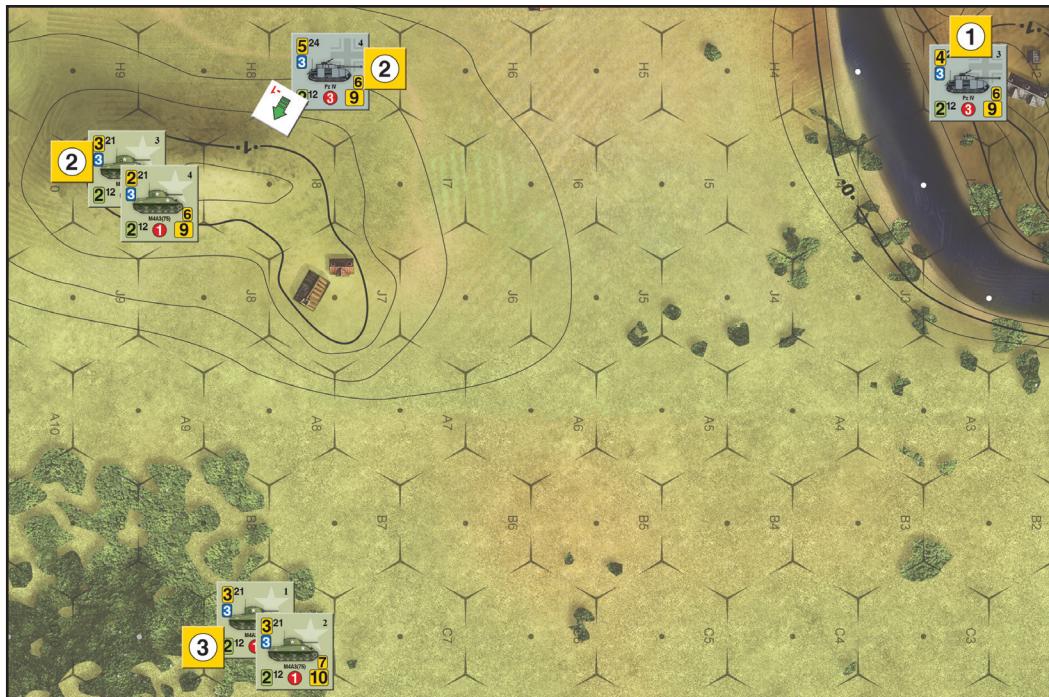
Turn 3 Activation

The German Pz IV #4, in an attempt to avoid Lt. Stephens' flanking maneuver and the fire from Sherman #1 to his front, reacts, conducting a Shoot & Scoot action against the maneuvering Sherman #3 as it crests the hill and simultaneously reverses off the backside of the hill. A **2 ATDRM [5 ATV, -1 for the Shoot & Scoot to an adjacent hex, -1 for a motion target]** marker is placed on Sherman #3. German Pz IV #3 reacts and fires against Sherman #1 and a **3 ATDRM [4 ATV, -1 for Suppression]** marker is placed on Sherman

of 11. The Pz IV is destroyed because result is greater than the Pz IVs AV of 9.

- Pz IV #3:** The die roll is 7, +1 for the ATDRM marker for a Final Fire Attack Result of 8. There is no effect because the result is less than the Pz IVs AV of 9.

**Time Lapse:** The American player's die roll is 9, resulting in a Time Lapse of five minutes for a total Time Lapse of 12 minutes through game turn 3.

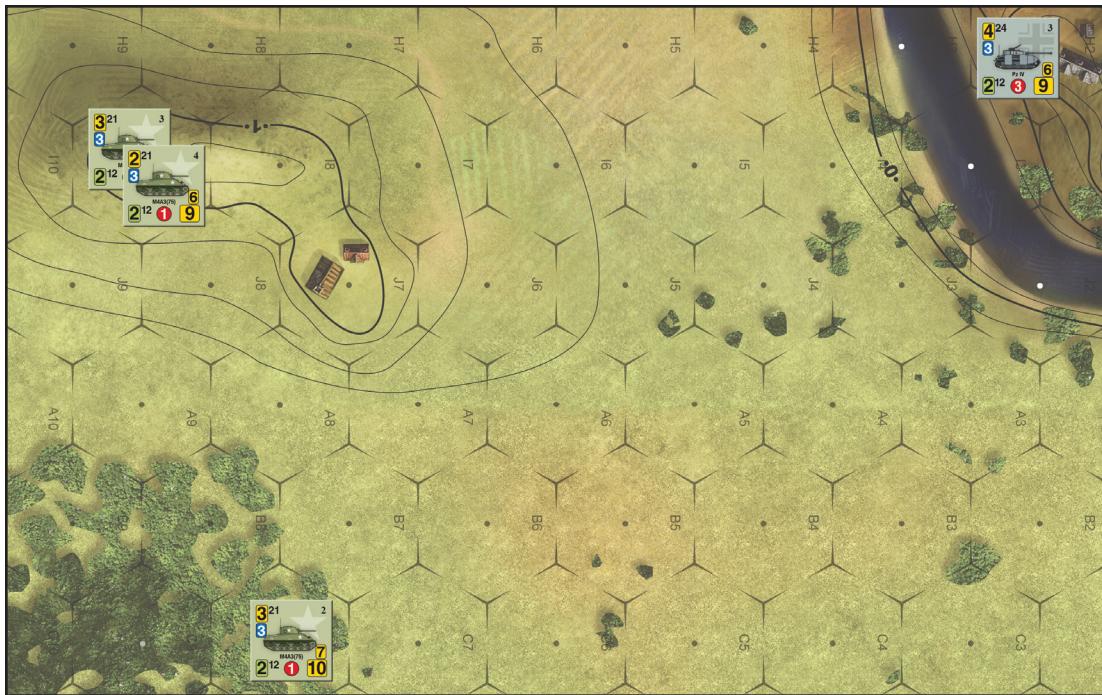


Turn 3 Fire Resolution

#1. The German player now calls for Reaction. Both players pass and play moves to the Fire Resolution Phase.

#### Fire Resolution:

- Sherman #1:** The die roll is 8, +3 for the ATDRM marker for a Final Fire Attack Result of 11. The Sherman is destroyed because the result is greater than the Sherman's AV of 10.
- Sherman #3:** The die roll is 3, +2 for the ATDRM marker for a Final Fire Attack Result of 5. There is no effect because the result is less than or equal to Sherman's AV of 10.
- Pz IV #4:** The die roll is 9, +2 for the ATDRM marker for a Final Fire Attack Result of 11. The Pz IV is destroyed because result is greater than the Pz IVs AV of 9.



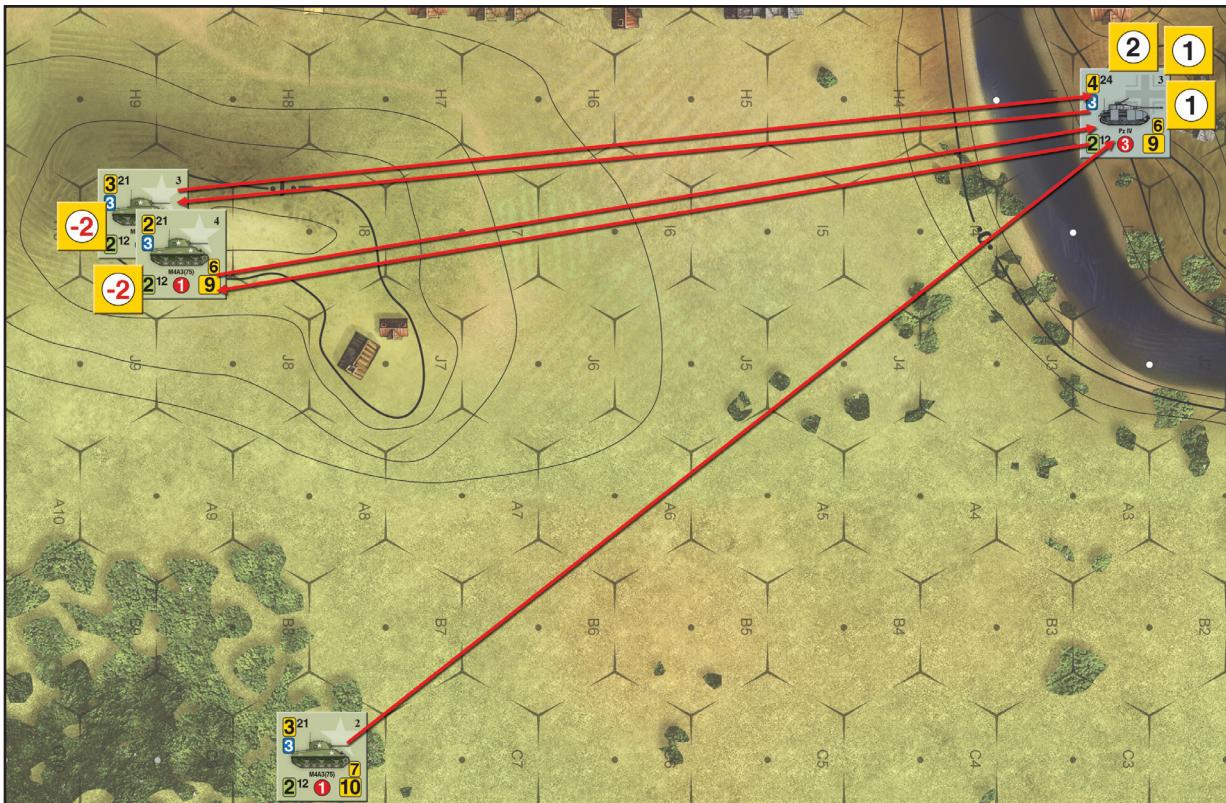
Situation at the End of Game Turn 3

## Turn 4

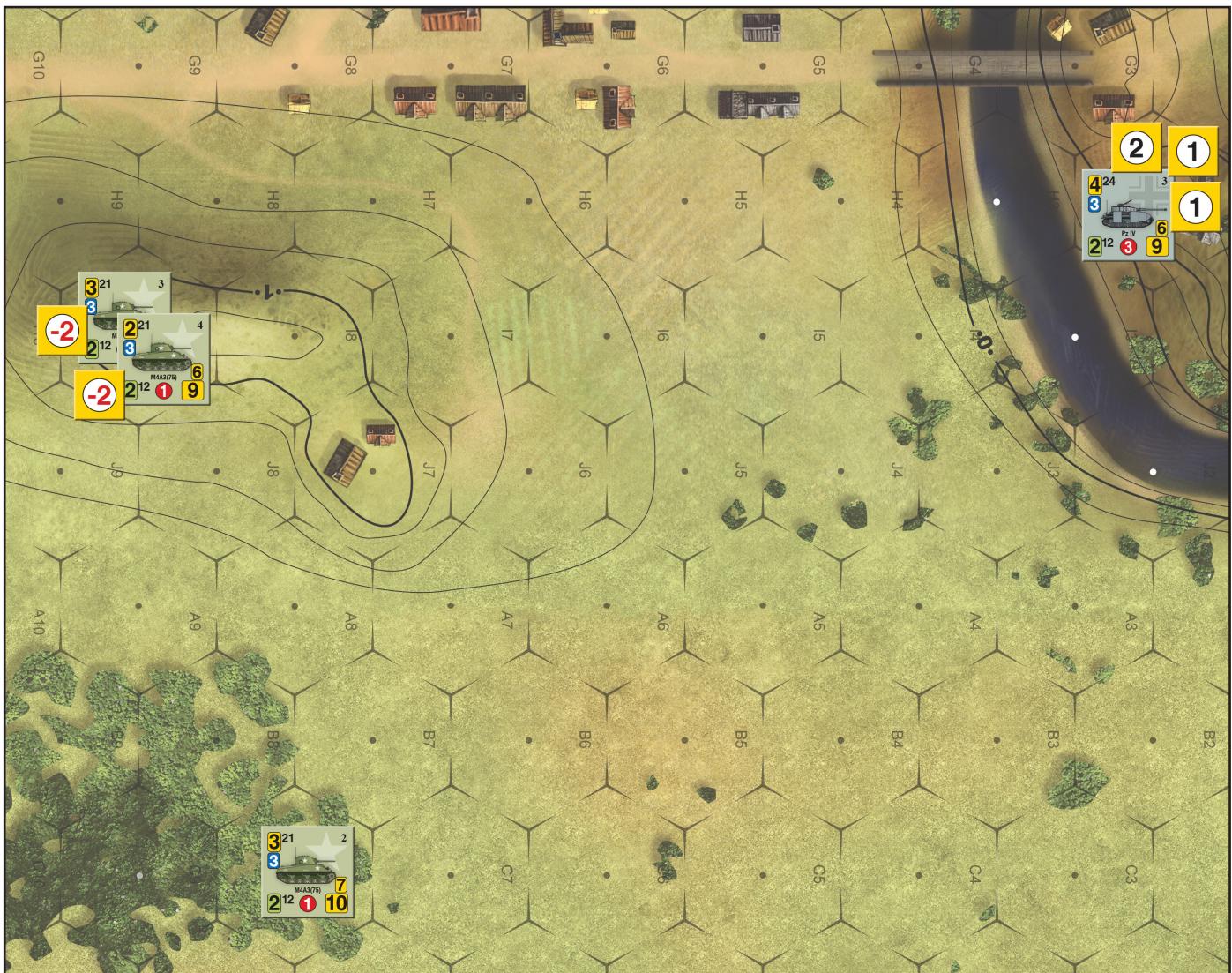
**Initiative:** The American player wins the Initiative.

**Activation:** Lt. Stephens, in an attempt to keep the remaining German tank from escaping, calls for all units to fire at Pz IV #3. Sherman #2 fires and a 2 ATDRM [3 ATV, -1 for the cover of the rural building] marker is placed on Pz IV #3. Sherman #4 also

fires and a 1 ATDRM [2 ATV, -1 for the cover of the rural building] marker is placed on the tank and Sherman #2 fires and a 1 ATDRM [3 ATV, and -1 for range, and -1 for firing against, firing against a target at a higher level or the cover of the rural building; the TEMS are not cumulative] marker is placed on the Pz IV. The American player then calls for Reaction from the German player.



Turn 4 Activation



Turn 4 Fire Resolution

Pz IV #3, in desperate straits, conducts a Shoot & Scoot action, splitting his fire, against Sherman #3 and #4 as it simultaneously reverses off the hill. A -2 ATDRM [*4* *ATV*, -2 for the Shoot & Scoot to an adjacent hex, -2 for the Split Fire, -2 for being Suppressed (-1 for every two DRM markers rounded up)] marker is placed on both American tanks.

#### Fire Resolution:

- Sherman #3:** The die roll is 6, -2 for the ATDRM marker for a Final Fire Attack Result of 4. There is no effect because the result is less than or equal to the Sherman's AV of 10.
- Sherman #4:** The die roll is 10, -2 for the ATDRM marker for a Final Fire Attack Result of 8. There is no effect because the result is less than or equal to the Sherman's AV of 10.
- Pz IV #3:** A die roll is made for each ATDRM marker. The first die roll is 8 +2 for its corresponding ATDRM marker for a Final Fire Attack Result of 10; the second die roll is 10 +1 for its corresponding ATDRM marker for a Final Fire Attack Result of 11; and the third die roll is 3 +1 for its corresponding ATDRM for a Final Fire Attack Result of 4. The single best most detrimental result, 11 in this case, is considered and all other

results are ignored. The German Pz IV #3 is destroyed because the result was greater than its AV of 9.

**Time Lapse:** The American player's die roll is 5 resulting in a Time Lapse of four minutes for a total Time Lapse of 16 minutes through game turn



## The Last Hundred Yards - Designer's Notes

### What Are We Doing Here?

Through the course of human history, a multitude of authors have penned their thoughts regarding warfare on everything from waxed tablets and scrolls to books and electronic media. Some of these documents emanated from the minds of generals, some from high political persons, and some from civilians. But others have written from personal experience. They are those who suffered through the utter horror, chaos, and unbridled cruelty of combat with men equally confused and terrified, but dead set on killing those who threatened their own survival.

It is the experience of these latter souls that **The Last Hundred Yards** (LHY) and other tactical level games seek to capture and render into a boardgame or computer game. More precisely, what we attempted to capture with LHY was best expressed by a writer recommended by a good friend. In writing about the nature of combat at the level of company commanders, platoon leaders, squad leaders, and their men, John Keegan wrote, *"What battles have in common is human: the behavior of men struggling to reconcile the instinct for self-preservation, their sense of honor, and the achievement of some aim over which other men are ready to kill them. The study of battle is therefore always a study of fear and usually of courage; always of leadership, usually of obedience, always of compulsion, sometimes of insubordination; always of anxiety, sometimes of elation and catharsis; always of uncertainty and doubt, misinformation and misapprehension...above all, it is always a study of solidarity, and usually disintegration; for it is toward disintegration of human groups that battle is directed"*, Keegan, J. (1976). *The Face of Battle*. Penguin Books.

While others have captured the nature of close combat equally well, after reading this and many other accounts of combat, several things stuck with me. First and foremost: Battle is very confusing at the bloody point of contact with the enemy. By confusing, I mean wild-eyed, ear-ringing, teeth-rattling confusing. To the combat participants, time appears to warp. At the individual squad or platoon level, information is extremely limited. Unless an identified enemy group is in line of sight of a unit's troops or actually firing or charging toward it, the soldiers under orders will simply perform whatever actions they were last told to do. Those troops will only slowly, if at all, deviate from their ordered mission. If they act in a way contrary to their mission orders, it is typically as a result of their commander perceiving a mission-threatening event and reacting to it. Amidst the confusion and horror of battle, soldiers who continue to function on both a personal and unit level display utmost courage.

At the tactical level, events on a battlefield are happening very quickly and they are often happening simultaneously. The smaller the level of battle, the faster things tend to happen. For instance, a pair of soldiers in a foxhole may be wide awake and prepared. But, they may be looking at the motion caused by a bird in a thicket to their right when two enemy soldiers move quietly by from a set of trees thirty meters to their left. The entire sequence could have easily transpired in a matter of seconds. Similarly, a tank crewman may see the shadow of a superior tank through the trees to its front just in time to start and escape detection before the superior tank

can engage. Again, the event, from spotting to escape, could take place in less than thirty seconds.

Both soldiers and units in combat, unlike a game player, do not possess the great "eye in the sky" knowledge of where things are or what is happening. This has always bothered me about tactical-level games, and one of the goals of LHY is to at least give the "eye in the sky" cataracts.

**Why we do what we do in The Last Hundred Yards.** The following "why we do what we do" sections discuss the various systems and mechanics used in LHY.

### Time Lapse System

Although technically LHY does not employ game turns, it uses a mechanic called Time Lapse. This mechanic specifies that at the end of each "game turn," players make a die roll to determine how much time has passed. Depending on the die roll, Time Lapse may vary from two to five minutes. One might ask, "How can time vary, isn't time constant?" It is my proposition that, although in truth time is constant, to a soldier in the midst of a firefight it is not. In one game turn, a squad may maneuver up to 150 meters (maneuver allowance of 3 Maneuver Points (MPs) at 50 yards per hex) in two minutes, yet in another turn it might take five minutes to maneuver the same distance. Why? Units maneuvering while under fire do so in fits and spurts—dashing from one position to the next, encountering numerous interruptions. For the soldier, time may seem to slow down or speed up depending on what's happening at the moment. Also, the amount of time required to advance over a particular distance will vary depending on enemy resistance. As a result, time is a variable with which a leader must contend in combat.

The Time Lapse mechanic serves several functions in LHY. It is a factor in determining the level of victory and a measure of how well a player is doing at any given time. Time Lapse also becomes a factor in deciding how soon a replacement will take over for a platoon leader who becomes a casualty. A combat leader has to deal with constant interruptions and delays caused by both friends and enemies while attempting to meet his objective. Communication interruptions, lost units, casualties, unexpected enemy fire, etc. may cause a leader to feel more or less ahead or behind his mission schedule. Thus, once the firefight starts, time is an uncontrollable factor in a combat leader's (and therefore a player's) decisions. Players must take into account not only the distance to be traversed, but also the interruptions and delays that can occur during combat. Therefore, the higher the Time Lapse die roll, the more time passes, and the player feels more deeply that he is falling behind schedule. Players must continually measure their mission progress, deciding whether they are ahead of or behind where they need to be and how much risk to take to achieve their objectives.

### Initiative System

The Initiative system in LHY represents the momentum swings that can occur during small unit combat. This momentum is similar to the momentum you see in team sports like college football. The team that acts has the momentum and dictates the pace and direction of play, and the team without the momentum can only react. Momentum can be a fickle thing. One moment your team has everything going its way, then, suddenly, the momentum swings to the other team, usually due to some event or mistake like a fumble or interception. It's very much the same in small unit combat. The attack

is progressing well, but there's a sudden disruption—the leader is wounded, a unit gets lost, an unexpected mortar attack or a sudden enemy counterattack—and momentum is lost. The best combat leaders, like the best coaches, adapt and adjust their plans and actions to the circumstances at hand until momentum is regained.

In *LHY*, Initiative is determined by a die roll during the Initiative Phase of the game turn. A player may receive a beneficial die roll modifier provided he had the Initiative (*e.g., momentum*) the previous game turn. The player with the highest adjusted Initiative die roll gets the Initiative and is the active player for that game turn.

So, what does it mean to be the active player with momentum? First, because the active player has the Initiative in the current game turn, he will benefit from any Initiative die roll modifier in the subsequent Initiative Phase, thus increasing his chance of being the active player in the next game turn. In addition, he can conduct actions with all of his units, while the non-active player's units may only react to the actions of the active player's units conducted within their line of sight (LOS). For instance, when firing, a unit of the active player may fire at any enemy unit in its LOS, but the non-active player's units may only fire at enemy units that conduct actions within their LOS. When maneuvering, any or all of the active player's units may maneuver, while the non-active player's units may only maneuver in reaction to enemy units that conducted actions in their LOS.

Thus an attacker with the Initiative (momentum) can and should press the attack because he will find it very tough to achieve his objectives once he loses momentum.

## Activation Cycle

The Activation Cycle is the heart of the game, and is based on the premise that “*where there is action, there's a reaction.*” This is certainly true in combat, and this is the basis of almost all small unit actions. Combat at a small unit level is primarily about fire and maneuver. Almost without exception, any fire or maneuver action in LOS of an enemy unit will certainly draw a fire or maneuver reaction and set off a chain of further reactions. The Activation Cycle in *LHY* is intended to model the initial actions of units possessing the Initiative and the resulting reactions of enemy units.

During each Activation Cycle, the active player, having won the Initiative, selects and activates a platoon, or possibly two platoons if the Coordination effort was successful, and any supporting units. Coordination is determined by a die roll at the beginning of the Activation Cycle. If successful, it allows the active player to activate two platoons together—simulating a coordinated attack. The active player then conducts fire, maneuver or recover actions with some or all of his units. **It is important to note that in *LHY*, each unit is limited to a single action or reaction per game turn.**

Once the active player has completed actions with units of the activated platoon(s), he calls for Reaction from the non-active player. The non-active player may react by conducting fire, maneuver, or recovery reactions with his units in reaction to active player units that conducted actions in their LOS. Once the non-active player has completed his reactions, he then calls for Reaction from the active player. The active player could then react with any of his units to units of the non-active player that conducted reactions within their LOS. Players continue to alternate reactions in this fashion until both players have finished reacting, at which point the current Activation Cycle ends. The active player may then activate another platoon,

beginning another Activation Cycle. This process is repeated until all the active player's platoons have been activated.

To illustrate how the Activation Cycle works, the following narrative follows Lt. Murphy (*representing the active player*) commanding the 2nd Platoon (the Activated platoon). The actions of the 2nd Platoon followed by both the non-active (*enemy*) and active (*friendly*) players' reactions constitute one Activation Cycle.

“Lt. Murphy has been tasked with securing an important road intersection. Having advanced to a position along the edge of a wood line approximately 200 meters away, he's had the intersection under observation for several minutes. He sees that the area around the intersection is fairly open, consisting primarily of fallow fields. The farm near the intersection is typical of those found in eastern France, consisting of a sturdy wooden farmhouse and a few outbuildings surrounded by a stone wall. It appears that the farmhouse is uninhabited.

Lt. Murphy instructs the 1st Squad to cautiously advance and secure the farmhouse (*initial friendly maneuver action*) while he holds the balance of the platoon in reserve to provide cover fire if needed. After maneuvering to within 75 meters of the farmhouse, enemy MG fire suddenly erupts (*enemy fire reaction*) from one of the outbuildings and the 1st Squad goes to ground. The 2nd Squad, still in the wood line, immediately opens fire (*friendly fire reaction*) to suppress the enemy MG position. In return, the 2nd Squad immediately suffers enemy small arms fire (*enemy fire reaction*) from the farmhouse. At the same time, Lt. Murphy notices an enemy squad maneuvering (*enemy maneuver reaction*) to a position along the stone wall. Lt. Murphy responds by calling for company mortar support (*friendly mortar fire reaction*) against the farm and sends the 3rd Squad along the tree line to the left to try and outflank the enemy (*friendly maneuver reaction*).”

In the example narrative above, the Activation Cycle of Lt. Murphy's 2nd Platoon ends with the 3rd Squad's maneuver reaction, because neither player has any further reactions. If there were other platoons in this scenario, the active player would select and activate another platoon, and the Activation Cycle would be repeated.

## Maneuver

The maneuver allowance in *LHY* is considerably less than other tactical games in order to better model simultaneous actions. This allows for a shorter, more compact action and corresponding reaction cycle, providing a more realistic feel. The maneuver mechanics are typical of most tactical games, in that units have a maneuver allowance and expend MP to enter a hex. What is not typical is that *LHY* provides the player a toolbox of various maneuvers he can use depending on the tactical situation, simulating the behavior and decisions of an individual platoon leader or tank commander in combat. For example, in addition to the normal maneuver action, infantry units may deploy any time during a maneuver (*helpful when encircling an enemy*), assault (*entering an enemy-occupied hex*), feint, or withdraw. Vehicular units have even more options, including Shoot & Scoot, Halt & Fire, Reverse (*good for avoiding Enfilade*), Overrun, Transport, and Withdrawal. I provided these toolboxes of maneuvers because I wanted a player to feel what it might be like to spend some time in a combat leader's boots.

The most important aspect of maneuver to grasp in *LHY* is this: **If the enemy did not see you maneuver, he will not be able to react.** This provides a whole new gaming dimension in the use of

cover when approaching an enemy position. In a real life situation, a platoon leader charged with taking an enemy position will make every effort to optimize his use of cover to get as close to the enemy as possible without being spotted. Likewise, in *LHY*, successful players will maximize the benefits of covering terrain when approaching an enemy position.

## Fire Mechanics

Firefights at the platoon and company level were never a continuous stream of fire but generally involved sporadic eruptions of violence interspersed with short pauses. Units maneuvering while under fire did so in fits and spurts—dashing from one position to the next. To model this type of simultaneous fire and maneuver action in a board game is difficult at best. My objective was to create an interactive fire and maneuver system that was simple but realistic, focused on the tactical decisions of the players, with as few die rolls as possible.

Although *LHY* is a squad-level game, the primary combat formation players will control is the platoon. The biggest design question I wrestled with was how to create a model where fire and maneuver actions occur simultaneously for some, but not all, platoons in a single turn. My solution was the Activation Cycle, which was discussed in a previous section. When one or more platoons are activated together, all the actions and subsequent reactions of the activated platoons (as well as the enemy's reaction) occur simultaneously within a single Activation Cycle. For example, the Commanding Officer orders the 1st Platoon to maneuver into a position to pin and distract the enemy, while the 2nd Platoon provides cover fire. This would represent a single Activation Cycle, with all actions and subsequent reactions occurring simultaneously. Similarly, in a subsequent Activation Cycle of the same turn, when the 3rd Platoon maneuvers into a position to flank or encircle the enemy, all the actions and reactions of the subsequent activation occur simultaneously.

The fire mechanics in *LHY* are based on the premise that during the short span of a few minutes represented in a game turn, the fire and attention of a firing unit are focused on a specific enemy unit conducting an action in the firing unit's LOS. All fire actions occur during the Activation Phase but are not resolved until the following Fire Resolution Phase after all fire and maneuver actions have been completed. So players will not know the results of *any* fire until after *all* fire and maneuver has occurred. This prevents players from having knowledge of results which might allow them to adjust their play in an unrealistic manner.

To reflect this, I chose to use a mechanic where Fire Attack Die Roll Modifier markers (*DRM markers*) are used to represent the net effect of a unit's fire on its target. There are three types of DRM markers used in *LHY*:

- Small Arms DRM (*SADRM*) markers are green and represent small arms fire against non-vehicular units in a particular hex at the time of fire.
- Anti-Tank DRM (*ATDRM*) markers are yellow and represent anti-tank fire against a vehicle or towed gun.
- Mortar DRM (*MDRM*) markers are red and affect all units in a hex.

Each time an enemy unit suffers a fire attack; the appropriate (DRM) marker is placed on the enemy unit or hex. A DRM marker is used

for every fire attack. They may be positive or negative, depending on the various die roll modifiers affecting the firing or defending unit at the time of fire.

DRM markers have varying effects, depending on the type of fire and the target. Units marked with SADRM or ATDRM markers may still conduct fire and maneuver actions normally, but are subject to a detrimental DRM because the firer is suppressed. Non-vehicular units marked with a MDRM marker in the primary impact hex are considered pinned, and may not fire or maneuver, whereas vehicular units are not considered pinned due to a MDRM marker.

Fire resolution in *LHY* is fast and simple. The firing player simply rolls a d10 for each DRM marker on a defending unit, or hex if small arms fire, adding or subtracting the DRM of the DRM marker to the die roll. The single net result most detrimental to the defender is used and all others are ignored. If the net result is greater than the defender's Cohesion or Armor Value, the defending unit is disrupted, casualty reduced, or destroyed, depending on the unit's type and circumstances.

## Armor

Based on my research, a veteran tanker has come to understand that the one firing first usually wins, that if you're not firing you should be moving, and that it is always the one you didn't see that kills you.

It's the tank commanders and their crews, more than their vehicles themselves, that determine success in armored combat. In my view, from a design perspective, armor is the single most difficult aspect of tactical combat to model. In most tactical games, designers tend to model the capability of the vehicle itself (e.g. armor penetration of the main gun, armor thickness, speed, etc.). Although all of these factors are important, they do not address the crucial aspects of the training, tactics, and experience of the tank commander and crew. The veteran tank commander and crew will almost always win out over the green, inexperienced crew, even with inferior equipment. This has been proven time and again on the Eastern Front and even against the US 1st Armored Division at Kasserine Pass. To reflect this, I model not only the technical capability of a tank, but also the quality of the tank commander and crew. I do this by varying the fire and defensive values for each model of tank. For example, a typical Sherman M4A3's fire value varies from 2 to 3, and its defensive value varies from 9 to 10. Although this may seem a modest gesture, it gives the veteran tank commander and crew in an inferior tank the ability to take on and defeat an inexperienced tank commander and crew in a superior vehicle.

### Modeling Behavior through the Manipulation of Weapon Data:

In most tactical games, our opinion of a game is based on preconceived notions of how realistic we think the weapon systems are portrayed in the game (i.e., Firepower, range, armor penetration, thickness, and slope of the armor, etc.). The best example is with armor. We are biased toward one tank vs another – but this is all based on the technical characteristics of the tank with little or no consideration of the training, quality, and behavior of the crew. In my opinion, a tank is only as good as its crew. Would you prefer to be in an inferior tank with superior crew or in a superior tank with inferior crew. In a game, we tend to think of a tank as just machine and generally unconscious of, and little empathy, for the crew inside. The crews behavior is men ignoring the fact that is occupied by men with the same survival instinct as infantry.

So how do you create a model where a player will naturally fight, employing doctrine and tactics of the Nationality he is playing without being forced to by rules? In this and previous volumes we often adjust counter values (i.e., fire, defense, range, etc.) to reflect the doctrine, tactics, and behavior of the various Nationalities. For example, to model the use of massed frontal infantry attacks we reduced average squad firepower and increased the cohesion of both Russian and Japanese squads – not because they were better than German or American squads, but with a better cohesion the Russian and Japanese squads have the advantage when assaulting. It will not take a Russian or Japanese player long to realize his better option is to assault whenever possible.

To do the same for Russian armor we decrease the range of armor's anti-tank value, encouraging the Russia player close with the enemy as soon as possible, as they did historically. For the Russians, this was the best way to mitigate several advantages the German armor normally had in "soft" armor systems, like superior optics, larger turret crews with less overtaxed crew members, superior crew training, and the like. These can be decisive advantages in long ranged armor engagements at 1500 meters but make little difference at 500. The modified unit values encourage the Russian player to close in (and trade off) where the fighting is equal, which was what they tried to do historically.

In LHY, I am attempting to model not only the capabilities but also the limitations of armor, and their ability to react. Situational awareness during the chaos of combat situations, especially near or around a tank, was incredibly poor, leaving tanks extremely vulnerable to flanking fire or infantry assaults. In the following accounts, I find it difficult to believe, amidst the chaos surrounding combat, that the crews of Wolfgang Faust's Tiger or Vasilly Bryukhov's T-34 would notice an enemy vehicle maneuvering into a position to their side or rear. Also, one can really appreciate the fear and caution of Lt. Danby as he maneuvers his Sherman through the streets of an enemy-occupied village in France even with infantry support.

*"The enemy was maintaining their onslaught and pressing forwards regardless of losses. Returning fire, my company was retreating deeper into the forest. A tank duel ensued under conditions of extremely limited visibility and maneuverability. Sometimes we were shooting at each other from point-blank range. Solid shells whizzed past, with shrapnel shells and aerial bombs exploding all around. Tanks, vehicles, the forest—everything was on fire. Control of the whole company became impossible, and combat took place in separate independent actions. Finding cover behind the trees, using glades, cuttings and clearings, the company held the enemy off with great effort."* Bryukhov, V. (2015). Red Army Tank Commander: At War in a T-34 on the Eastern Front. Pen and Sword Military.

*"Wilf, our gunner up in our turret, fired three times in ten seconds, with Stang our breech-man grunting as he reloaded with amazing speed each time. Our rounds deflected off the Stalin's huge turret twice – and the third actually stuck in the armor plate, a slug of German steel jammed into a slab of Russian steel, its tracer still glowing red. Beyond the Stalin, I saw a Tiger roll into a depression in the ground, burning from the engine deck; and then another of our panzers standing still, with its hatches open and the crew climbing out with their uniforms on fire. Suddenly, my glass vision block shattered as we were hit on our front plate by the Stalin facing us. I heard another impact striking our turret, and a long groan from somebody up there, followed by a*

*series of shouted commands from Helmann. Yet another impact came, low on our front hull, and the blow threw me back in my seat. My ears were ringing, and I could see nothing through the wrecked glass except the red sunset sky. Helmann kicks me in the back, the tip of his polished boot brought me to my senses. In the seat alongside me, Kurt was yelling, 'Push out the glass, Faust' while Helmann was screaming, 'Faust, ram that Stalin. Ram it!' In a daze, I unclamped the vision block from inside, raised the armored bracket and pushed the broken glass out onto the hull front. A blast of freezing air came in, bringing smoke and sprays of ice – and then a blast of metal fragments as another shell hit us, blowing scabs of armor plate off our front. With bits of metal in my face, I drove the Tiger straight at the Stalin, aiming hull-to-hull across the rolling ground. I could not understand why our gun was not firing – then I realized the terrible groan, which erupted when the Stalin's shell hit us told me someone in the turret was badly wounded. With no gun, we could only use our sixty tons and our Maybach as a battering ram – it was either that, or sit obediently and be shot to pieces."* Faust, W. (2015). Tiger Tracks – The Classic Panzer Memoir. Bayern Classic Publications.

*"Lt. Danby's tank crept forward along the narrow main street, negotiating through the tricky sunlight patterns filtering through the gently rustling leaves of the trees overhead. Every ghostly flicker off a stone wall or glint behind a half shuttered window mocked mortal danger. Danby's tank idled frequently in order to not outpace the doughboys jockeying in fits and starts among the nearby buildings, and the M4A1's motor growled as if annoyed. From the turret hatch, Danby watched and listened for any other Marders attempting escape through the crossroads. Inside, Cpl. Vargo kept the main gun ready with his hands resting on the traverse controls and his foot hovering near the fire switch. Pvt. Dishner sat cramped and sweating on the opposite side of the main gun, ready to recharge the barrel with a new round of AP or HE. The tank and infantry team progressed without incident past the Mourier blacksmith shop, the post office and Martel's home. As they drew near the crossroads, however, a bitter chorus of German small arms fire crackled with sudden vitality, the bullets hissing and popping through the hot air. Some shots pinged off the tank hull while others screamed as they ricocheted in wild directions off the stone and asphalt. The Germans were not going to relinquish the crossroads without a fight. Concerned about being hit by a Panzerfaust, Danby ordered Tikkanen to halt the tank until the infantry could clear the immediate area. While sergeants barked orders and encouragement, the men shot forward, leapfrogging along the walls and doorways and returning fire with their M-1 Garands and BARs. The advance fell far short of dislodging the determined German defenders, and a static firefight ensued."* Danby, J. (2008). Day of the Panzer: A Story of American Heroism and Sacrifice in Southern France. Casemate.

So how does LHY address these issues? It depends on the situation. For example, an enemy tank passes through an opening to your left 100 meters wide at a distance of 400 meters and disappears behind a building. Even if you did happen to see the enemy vehicle, your response and the effectiveness of any fire would be significantly reduced.

In another case, your stationary AFV is facing an enemy AFV to your front when a second enemy AFV discreetly maneuvers from behind a building 300 meters to your rear. Assuming you saw the

second AFV maneuver, which is unlikely, in LHY you would have several options. You could:

- a) Pivot and conduct reaction fire against the second enemy AFV behind you but in doing so expose yourself to a rear quadrant shot from the first enemy AFV
- b) Wait and conduct reaction fire against the enemy AFV to your front
- c) Conduct a maneuver reaction to seek a better position out of LOS of one or both enemy AFVs, or
- d) Conduct a Shoot & Scoot against the second enemy AFV but possibly suffer a potential rear shot from the first AFV (although its firepower would be reduced because you would be a target in motion).

And yet in another case, an enemy AFV conducts an action 600 meters away on the other side of the map board and clearly out of LOS of your stationary AFV. Most likely you would not even know the enemy unit existed unless a friendly AFV had LOS to the enemy AFV and notified you by radio. In most tactical games you would be able to react anyway, with complete knowledge of the enemy unit's maneuver, responding accordingly. But in LHY, because the enemy unit did not conduct the action in your LOS, your reaction for the game turn would be limited to going into motion in the hex you currently occupy. In a subsequent game turn, provided you were still in motion, you could then conduct a maneuver reaction, but your maneuver allowance would be reduced.

Vehicles have multiple fire and maneuver actions they can use in different tactical situations. An AFV may conduct a Shoot & Scoot action, allowing a stationary AFV to fire and go into motion in its current or adjacent hex. If already in motion, an AFV may conduct a Halt & Fire action, allowing the AFV to stop and fire in the same action. These actions are especially handy when in LOS of a superior enemy AFV. When an AFV is at risk of enfilade (flank shot), it may conduct a reverse maneuver action and therefore possibly deny the enemy a flank or rear shot. AFVs can overrun enemy non-vehicular units in open terrain, which is particularly effective against withdrawing or retreating non-vehicular units. An AFV may also assault an enemy-occupied hex with or without supporting infantry. In addition, vehicles may conduct Transport actions, transporting non-vehicular units and towed guns.

## Mortars

Before we discuss how mortar support is represented in LHY, I feel it necessary to briefly share various excerpts from different sources discussing the use and effectiveness of mortars in World War II.

Mortars caused more casualties in Normandy than any other weapon. The main reason was because there is no incoming sound, thus no warning to take cover. German mortar fire was a serious concern amongst the Allies in the OVERLORD campaign. For instance, in the 21st Army Group, a specific committee was formed to study the problem and recommend counter-measures. The operational research unit in the 21st Army Group produced a report on the subject:

*"The Germans use mortars in large numbers... In the present campaign, casualties from mortars have been particularly heavy and have contributed as much as anything else to making advances slow and costly. The casualties in the present campaign from mortars have been very heavy, heavier in fact than from*

*all other weapons put together, at least as far as the infantry are concerned...[However] exact figures for mortar casualties are hard to get. Medical records only show the weapon causing the casualty in a few cases. A number of infantry battalion MOs... all agreed in placing the proportion of mortar casualties to total casualties among their own troops as above 70%".* Copp, T. (2000). *Montgomery's Scientists: Operational Research in Northwest Europe*. Laurier Centre for Military, Strategic and Disarmament Studies.

In their book, *D-Day*, Zetterling and Tamelander, two Swedish military historians, discuss German infantry tactics in regards to the use of mortars, which for the German infantry was a key weapon:

*"The battlefield of Normandy was somewhat confined, meaning the defensive area, including likely approach routes, was mapped and plotted in by artillery and mortar observers. When Allied infantry entered the German defensive area they would come under fire from a few German riflemen. The idea was to get the allied soldiers to drop to the ground for cover on a likely spot selected by a forward observer. When the Allied soldiers ducked for cover, a barrage of mortar fire was immediately under way. The mortar fire would come in quickly, hit with great accuracy, and usually have a devastating effect. This is because they knew in advance where to fire, and the crew was ready and waiting to fire. The allied officers had a hard time convincing their soldiers that it was far less dangerous to keep moving than to stop when taking light small arms fire. 70% losses to mortar fire may be exaggerated, but in Normandy, and probably elsewhere, the mortar was the deadliest German light infantry weapon."* Zetterling, N. and Tamelander, M. (2003)[1995]. *Avgörandets Ögonblick: Invasionen i Normandie [Determining the Decisive Moments: The Invasion of Normandy]* (in Swedish). Stockholm: Norstedts.

**Roles of the Mortar:** Maneuver units benefit greatly from indirect fire capabilities, and the mortar was invariably the single most powerful indirect fire element of the infantry battalion. The primary role of mortars was to provide indirect fire support, at a company or battalion level, in the assault or defense of an objective. In small unit combat, mortars serve as both a killer and suppressor of enemy forces and an enhancer of friendly maneuverability. On the attack, the mortar is used primarily to suppress the enemy, inhibiting his fire and maneuver while allowing friendly forces to gain a tactical advantage.

Defensively, the mortar was used to break up enemy troop concentrations, reduce the enemy's mobility and channel his assault forces into engagement areas, and break up the enemy combined arms team and destroy his synchronization.

Each mortar section was capable of firing an effective concentration in an area up to 100 square yards, making the 6-tube mortar platoon a potent force, although there were significant tactical limitations to what could be achieved. *Perhaps the biggest drawback of the mortar was the high rate of ammunition expenditure and the need to husband ammunition. Thus, target selection was vital.* The average 80 mm mortar round weighed 9 to 10 lbs. with a rate of 15 to 20 rounds a minute. A section could easily burn through 300 to 400 lbs. of ammo in a single minute—and that's just for one section. For an entire mortar platoon that would mean almost a thousand pounds of ammo.

Mortars could also deliver smoke rounds. Smokescreens were important tactical tools. Their intent was to deceive the enemy;

did the appearance of smoke signal an advance under its cover against a particular sector, or did it merely conceal a feint by a few men while the real blow was struck elsewhere? Unfortunately, smoke rarely adhered to the plan in quite the way it was intended. A sudden gust of wind could reveal the force maneuvering behind it, or worse, blow back the smoke and blind the advancing troops instead. During a forced withdrawal, mortars could quickly lay a smokescreen to cover the retreat of a company and greatly mitigate the effectiveness of harassing enemy fire.

**Organization:** Mortars were most devastating when used in numbers. Placing individual mortar sections under the direct control of rifle companies depleted the mortar platoon's firepower. Splitting them up into company level units denied the battalion commander the opportunity to deliver a single, concentrated barrage from the necessary minimum of four tubes. If, as with the later German model, he had more than six tubes to work with, he could afford a more generous allocation to his rifle companies, but ultimately the mortar platoon was a battalion asset, not a substitute for lack of explosive firepower in the rifle units. The American mortar platoon typically consisted of six 81 mm mortars while a German mortar platoon consisted of six 8 cm mortars and later an additional two 8 cm or 12 cm mortars. Each American rifle company included its own 60 mm mortar section for indirect fire support. Although the German rifle companies did not have inherent mortar sections, it was not uncommon for a single 8 cm mortar section to be assigned as direct support to a rifle company.

**Fire Control:** Mortar fire control was reliant upon coordination between the mortar crews themselves and their forward observers. Fire control could be exercised either from an Observation Post (OP) or mobile fire controller. The OP, more commonly used in a defensive role, was sited forward of the mortar position and was linked by telephone line, a more reliable method than the radio of the day. The mobile fire controller, more commonly used in an offensive role, would typically accompany the headquarters of a rifle company and would be linked by radio to the mortar position. This allowed him to call in fire missions to engage targets of opportunity or help overcome stubborn points of resistance out of sight of the OP.

Mortar support was a key element in combat at the battalion level. As such, we have attempted to model it as accurately as possible and yet keep it simple. Both mortar platoons and mortar sections are represented in LHY. I have endeavored to accurately represent both the fire control systems and the brutal battlefield effects of mortar fire. I try to model not only the killing and suppressing effects of mortar fire but also its effects on a unit's ability to maneuver. As it was historically, mortar fire is the single most powerful element in LHY. The timing and use of one's mortar support is critical in the success of small unit operations. As both a player and a designer, I think the mortar fire system is one of the best and most fun systems in LHY.

## Platoon Leaders

Combat leadership at the tactical level, such as in LHY, is a distinctly important and honorable responsibility. This is what General George C. Marshall wrote about it:

*"When you are commanding, leading [soldiers] under conditions where physical exhaustion and privations must be ignored, where the lives of [soldiers] may be sacrificed, then, the efficiency of your leadership will depend only to a minor degree on your tac-*

*tical ability. It will primarily be determined by your character, your reputation, not much for courage—which will be accepted as a matter of course—but by the previous reputation you have established for fairness, for that high-minded patriotic purpose, that quality of unswerving determination to carry through any military task assigned to you."* The George C. Marshall Foundation. (2018). What George C. Marshall said about leadership. Retrieved June 17, 2018, from [www.marshallfoundation.org/marshall/george-marshall-said-leadership/](http://www.marshallfoundation.org/marshall/george-marshall-said-leadership/).

However, life as a platoon leader was extremely risky. A good platoon leader leads from the front, and the enemy can easily spot him due to his actions. This naturally led to high casualty rates. Therefore, it was common that the enlisted men in the platoon usually didn't bother to inquire much about their lieutenant until he had been around long enough to demonstrate high skill and good luck. The sad fact is that most platoon leaders weren't lucky enough to have time to develop their skills.

In LHY, a platoon leader counter represents the officer, usually a second lieutenant, a platoon sergeant, a radioman, and a couple of runners to assist a platoon leader in directing the actions of his platoon. The combat leadership functions of the platoon leader are expressed in rules relating to Initiative, Reaction, Spotting for Mortar Fire, Small Arms and Mortar Fire Resolution, Assault, and Recovery.

**Maintaining the Initiative:** Initiative is the enabler and sustainer of momentum for combat actions in real life and in LHY. When things start to fall apart in combat, due to occurrences such as heavier than expected enemy resistance and/or casualties, soldiers tend to halt in place and look to their leader for direction on what to do next. If the platoon leadership is incapacitated for any reason, even temporarily, this results in a halt in actions and the ceding of initiative to the enemy until leadership is restored. In LHY, a platoon leader unit must be in play (*not removed from play as result of a casualty*) for a player to be able to roll the die to gain or maintain the Initiative. Otherwise, the units of the platoon leader's platoon can only react to the enemy's actions until the platoon leader returns to play and establishes the ability to gain and maintain the Initiative.

**In Reaction:** In a combat situation, it's difficult for a platoon leader to control his squads when they are dispersed. This is also true in LHY, especially for the player without the Initiative because his units are generally limited to reactions against enemy actions within their view. In fact, those units without visibility to enemy unit actions cannot react at all. If you are the player with the burden of attack, losing the Initiative and having your units frozen in place can be debilitating. Your ability to conduct an assault is diminished, and any effective defense can be compromised as defensive positions become vulnerable to flanking or enfilade tactics.

Platoon leaders can help mitigate losing the Initiative and can help units that have become disconnected from the battle that cannot react themselves. Units stacked with, and sometimes adjacent to, a platoon leader may always react, even if no enemy unit conducted an action in their view. When on the offensive and not in view of enemy units, it is recommended that all units of a platoon, including the platoon leader, stack and maneuver together. With his platoon concentrated, the platoon leader can more effectively react—issuing orders (actions) to his squad leaders as needed. However, once his platoon comes into visual contact with the enemy, it is critical that a platoon leader disperse his squads; otherwise, they risk inviting

mortar fire. When on the defensive, units with no visibility to the enemy should be stacked with their platoon leader, allowing them to react by reinforcing friendly units under assault or threatened by an enemy flanking maneuver.

**Directing Mortar Fire Support:** Forward Observers (FOs) worked closely with the company and platoon leaders to coordinate indirect fire support for their operations. Most platoon leaders were trained to spot for indirect fire as well, should an FO be unavailable or become incapacitated. To spot for mortar fire in LHY, the FO marker is placed in the hex of a requesting platoon leader or one of his subordinate combat units. For the mortar fire request to be successful, neither the requesting combat unit nor the platoon leader can be disrupted, regrouping, under a mortar fire attack, or in an assault. However, in the tradition of a “broken arrow” type spotting call, a platoon leader in LHY may call for mortar fire into a hex containing friendly units if, and only if, it is an assault hex he occupies!

**Leading Men Under Fire:** When the shooting starts, good platoon leaders aren’t going to hunker down and blast away. They’ll be running around, giving orders, organizing the fight, and inspiring their men to continue to fight. Although these actions make them vulnerable to fire, their presence increases the Cohesion of their men even when under heavy fire. To represent this in LHY, during the Fire Resolution Phase, the Small Arms or Mortar Fire die roll result is reduced by one if a platoon leader is present, provided the leader’s Cohesion is better than the Cohesion of the best combat unit in the hex.

**Leading from the Front:** In times of great chaos, someone must steady the men and drive them to engage or resist an enemy at Close Range. It’s the platoon leader’s role in an assault to plan, coordinate supporting fire, and direct his men, making good use of terrain to close with the enemy. Generally, in LHY, it is the platoon leader who assumes the burden of the fight and will push the men forward. Platoon leaders have an influence disproportionate to their number regarding the outcome of a battle. At times the momentum of an assault will stall under heavy fire, especially if it is conducted over open or difficult terrain. In times like these, the platoon leaders move to the front, usually at great risk to themselves, and lead their men into the breach.

**Recovery – Rallies his Men:** A unit under the pressure of combat will act according to what they perceive is occurring as well as to what is actually occurring. Should they perceive a setback or a significant unanticipated occurrence, they will likely either hold position until things clear up or work back to their last perceived stable position to regroup and await further orders. The presence of a respected platoon leader can help stabilize the situation. Paraphrasing an anonymous veteran commenting on his unit’s leader after the Market-Garden battle in The Netherlands in 1944: “I sensed that he saw us rather than looked at us...that mutual respect was the core ingredient of our discipline and morale.” In LHY, an undisrupted platoon leader provides a favorable die roll when assisting in the recovery of subordinate units in his hex.

**Platoon Leader Casualties:** Although a leader can become a casualty at any time, it is more likely to occur in Close Range combat situations, such as when attacking or defending during an assault. At Close Range, a leader is an easily recognized target; he’s usually the guy standing while directing his men. Thus, many leaders became casualties during close combat, creating a temporary leadership vacuum in their platoons. In LHY, this will result in many, if not

all, of the circumstances explained under the previous sections in this article. That is, the platoon will react to their leader’s casualty and act in accordance with their perception of the new leader and the current combat situation.

In LHY, a platoon leader can be lost due to fire, a sniper event, or during an assault. A platoon leader casualty lasts for seven minutes of lapsed time, which could be 2-3 game turns, representing the momentary leadership vacuum and the time needed to effectively replace the leader. The leader’s return represents either the return of the original leader (*slight wound*) or the taking over of leadership by the platoon sergeant or ranking squad leader.

In summary, while the actual fighting is done by the line infantry, effective combat leadership is essential in gaining and maintaining the initiative while inspiring the men to continue their pursuit of the objective, despite the great personal danger they face in close combat. The mutual respect between soldiers and their leader is the key ingredient in maintaining the discipline and morale necessary to accomplish the task at hand. In LHY, the platoon leader units are the counters that can make the difference in a tight situation; some are better than others, so use them wisely!

## Elite vs Regular Units

The introduction of elite units to the LHY series raised an interesting question: What was important to modelling Elite units during WWII? Essentially, the challenge was how to model the difference between these elite units and the regular units depicted in LHY. We asked some military experts and they cited that an important distinction is that the elite unit selection process identifies people with a high appetite for risk and a penchant for action. That makes them more likely to get up and do something (for example: have initiative, recover under stress, provide the flanking effort, provide squad and platoon leadership, etc.). Elite unit training is therefore more demanding of such people and intentionally designed to produce esprit de corps and to reinforce their risk-tolerance and penchant for action.

How are these characteristics of elite units translated into the game? Typically, the first thought is that because the units are elite, they should have a better Small Arms (firepower) and Cohesion values than regular infantry. But this is not necessarily true. In the case of the US Airborne — they used the same weapons (i.e., M1 Garand) and it’s doubtful they were any better shots than regular units. Therefore, it is hard to justify an increase in their small arms value. As for cohesion, disruption of a unit in the LHY does not mean it panics or routs but instead, when under heavy fire, a unit will “go to ground” and is temporarily out of action until it recovers (i.e., gets back in the fight). Regular or elite units, in the interest of self-preservation, will both go to ground when under fire. From this standpoint, it was hard to justify increasing the small arms and cohesion values of Elite units. As a result, players will notice that the Small Arms and Cohesion values of both elite and regular units remain basically the same.

So, how do we model the differences that make elite units ‘special’ in the LHY? The following allowances, although subtle, better model the intangibles in the selection, training, and performance of individuals for elite units in combat.

- **Leadership:** Elite platoon leaders have a Cohesion value of 7 and, as a result, have a greater impact on the effectiveness of their subordinate units under fire.

- *Initiative:* Forces that have elite units, in whole or in part, will likely have an enhanced Initiative modifier.
- *Initiative at the Squad Level:* Unlike regular units, Elite units that are disrupted can conduct a Limited Reaction to Recover after any enemy Call for Reaction. This can occur regardless of whether they observe an enemy action, or are stacked with, or adjacent to if in open terrain or on a road, their platoon leader. [This reflects the superior training and experience of the NCOs at the squad level]
- *Coordination:* Elite companies receive a favorable Coordination DRM of +3. This means that Elite Companies will successfully achieve Coordination 60% of the time vs 30% for regular units. This substantially increases the ability of elite units to envelop the enemy during an Assault. This reflects the greater emphasis on the training, coordination and teamwork of elite units.
- *Esprit De Corps:* Elite units receive a favorable Recovery DRM when attempting Recovery and therefore increasing a unit's chance of Recovery. In addition, Elite units Rally on a die roll  $\leq 2$ , and  $\leq 3$  if assisted by their platoon leader. This means they will return to action quicker than regular units.

In summary, you will find that the elite units in LHY are really tough and will typically perform best in difficult situations.

## The Imperial Japanese Army

The change from Western Europe in the first two modules to the Pacific for module 3 required a unique shift in the Last Hundred Yards' model. The Pacific module incorporates adjustments to better reflect the strengths and limitations of Japanese tactical doctrine, weapon systems, and its soldiers' behavior in combat.

The individual Japanese soldier was physically hardy, strong and because of good training was "at home" in the jungle and excelled in the use of camouflage. Stealth, infiltration, and deception were noted characteristics. They were relentless when on the attack and when in prepared defenses, usually tenacious unto death.

*When it came to weapons production, the Imperial Japanese Army's requirements often came in second to the needs of the Imperial Japanese Navy. The Army was an infantry-heavy organization that lacked much in the way of the modern heavy weaponry other armies enjoyed. Their antitank capabilities were extremely limited; artillery was often lacking and sometimes restricted to small, outmoded pieces; and its armored forces included obsolescent tanks that were greatly inferior to their opponents' armor. To help compensate for the lack of heavy weapons, the Imperial Japanese Army worked hard to develop large numbers of what were probably the best light infantrymen in the world at the time. Their creed stressed relentless offensive action seeking a quick decision and emphasizing spiritual factors including zealous dedication and fighting spirit. Night attacks were a true specialty, and their weaponry reflected their light and fast doctrine. To offset their frequent lack of artillery, the Japanese augmented their firepower through the extensive use of mortars, the best and most cost-effective substitute for industry-intensive heavier artillery. And few were as feared, or as effective, as the Type 89 "Knee Mortar," or grenade discharger.<sup>1</sup> Robert Cashner – "What Made the Dreaded Type 89 Knee Mortar So Damaging (warfare-historynetwork.com)", October 2010 Warfare History Network.*

These unique characteristics of the Imperial Japanese Army are incorporated into the LHY series rules to best model Japanese unit behavior during the Solomon Islands campaign. The enhanced ability of the Japanese to maneuver on their enemy, and maintain contact despite casualties, leads to a nail-biting experience for players of the American forces, especially at Night. Players can take cold comfort in knowing that many a Marine and Army veteran of that campaign felt much the same way.

So, how should you play the Japanese to maximize the impact of their unique characteristics? The Japanese player should play aggressive and be willing to take losses. They are at their best in the assault especially in combination with envelopment. The Japanese strength is fighting in the jungle and/or Night. They should avoid attacking in open terrain due the American's superior firepower. If forced to attack in open terrain during the day, the Japanese should concentrate their force using terrain and MFAs (including smoke) to hinder the enemy's LOS, enabling their infantry to close with the enemy. The Japanese should advance/infiltrate as rapidly as possible toward their objectives to get past/behind the American forces. This will typically pressure the Americans to give up their forward positions to fall back and avoid being cut off.

Also, the Japanese tanks are inferior to Allied armor and, if used aggressively, their losses will pile up quickly which will contribute to an early CDL loss. They are best used supporting the infantry with fire support and in assaults. The Japanese should avoid directly engaging Allied AFVs/AT guns with their tanks, if possible, and instead use the infantry to either destroy or flush out Allied AFVs and AT guns from their positions.

### Additional Resources

Douglas Ford – Dismantling the "Lesser Men" and "Supermen" myth: US Intelligence on the Imperial Japanese Army after the fall of the Philippines, Winter 1942 to Spring 1943. 2009.

US War Department – "Excerpts from the Handbook on Japanese Military Forces" TM E 30-480, 15 September 1944. [www.ibiblio.org/hyperwar/Japan/IJA/HB/HB-7.html](http://www.ibiblio.org/hyperwar/Japan/IJA/HB/HB-7.html).

## The Red Army

Like the change from Western Europe in volumes I and II to the Pacific for volume III, East Front volume IV also required a unique shift in the Last Hundred Yards' model for Eastern Europe. This volume incorporates adjustments to reflect the strengths and limitations of Russian tactical doctrine, weapon systems, and its soldiers' behavior in small unit combat.

In general, the Russian population was mostly uneducated and agrarian in a time when war was becoming increasingly more technical and complex. The war also demanded total mobilization, so the army had to use all available manpower. As a result, the recruiting and training of personnel for all arms was problematic. For the individual Russian soldier, he most likely had spent the majority of his life living and working outdoors and was well suited for the rigors of combat in the vast and harsh environment encountered on the East Front. He was physically hardy, known for his stealth, and adept in the use of infiltration and deception.

Training of the Russian soldier was always under immense stress due to heavy losses in manpower and equipment throughout the war. In general, training was basic at best and often cut short due to the huge manpower demands of the front. Late war, it was com-

mon practice to conscript men from the reconquered lands as the Red Army advanced. More often than not, the Russian soldier had to “learn on the job” as reflected in the following statements by two Russian officers:

“Although we did not have real combat experience, we taught our subordinates to do the things that we knew and could do after graduation from the military academy. After two or three months of training, or sometimes even less, men were sent as replacements to the combat units.” Bessonov, Evgeni. *Tank Rider: Into the Reich with the Red Army*. Skyhorse Publishing.

“The training was very intense; a great deal of time was given to the theoretical aspects – the technical features of tanks as well as tank tactics. There was only one practical session: I fired three shells and one machine-gun magazine. We also had a little bit of practice driving a BT-5 tank, covering the fundamentals: how to start off and how to drive in a straight line. There were also tactical studies, though mostly on foot, pretending to be tanks! Only at the end was there a showcase training session – a ‘tank platoon in attack’. That was all! Bryukhov, Vasiliy. *Red Army Tank Commander*. Pen and Sword.

**Russian Tactical Doctrine:** The Russians tended to employ mass attacks by successive waves stubbornly hitting the same frontage, each followed by a renewed application of fire support. Such “hammer blows” were meant to break through German defenses regardless of cost. Infantry did make use of night infiltration tactics before main attacks, especially where the Germans used “strongpoint” rather than continuous linear defenses. But these were ways of shaping the battlefield before the main attacks rather than a substitute for them. Russian mechanized force tactics varied the wave approach by using echelon tactics. The first echelon was expected to find and fix the enemy, then the second would hit one flank or wing of the now fixed defenders based on the larger formation’s original deployment. A third echelon would act as a reserve ready to exploit any breakthrough. These attack doctrines were meant to be simple formulas that could be learned and applied by relatively inexperienced officers that would suffice to make an expected advantage in numbers effective. Without such a numerical advantage the Russians generally would not attack.

**Command and Control:** In general, the Soviet system conditioned its citizens to avoid independent actions by instilling the fear of making mistakes (failure) and being punished, hence the infamous quote from Stalin “It takes a brave man to be a coward in the Red Army”. That conditioning, when combined with generally poor training, resulted in a lack of initiative on the part of the Red Army’s lower-level leaders and their men when compared with western armies of the era. As a result, Russian forces at the tactical level tended to do only what they were told. The specific Russian Command & Control rules are meant to reflect this lack of flexibility and initiative to restrict a Russian player’s ability to conduct complex maneuvers at the level of platoons and individual squads.

*“The house, where we took refuge, had been under fire too. The four of us, my friend Vasily, a soldier from a rifle company, a senior lieutenant, and I, sat on the floor near the window wall. As I suspected, being inside the house was a great risk. At any second, a shell could fly into a window, or a mortar could explode on the roof. The sense of danger and fear forced me out to the backside of the house. My friend and the soldier from the rifle company came after me. The senior lieutenant stayed in the*

*house. He kept silent and did not take any action. We all thought the position hopeless. We blamed the chain of command: the company commander had blamed the battalion commander, and he blamed the regimental commander in his turn, and so on—all the way back to the Kremlin. But the next day, the charge went in the opposite direction and, as a rule, it was restricted to soldiers or platoon commanders. After the battle was over and reviewed, the guilty were found and punished.*

*The true state of affairs was that everyone was afraid of being blamed and severely punished. The subordinate officers would never take independent action to change the orders that came from above. The entire Soviet system, both civil and military, rested on a rigid subordination from the bottom up. The highest authority was considered to be true and infallible. If a battle was won, everyone thought it was only thanks to the supreme leader’s personal qualities. Recruitment was not based on merit but on executive orders year-to-year.” Makarov, Ivan. Born Under a Lucky Star: A Red Army Soldier’s Recollections of the Eastern Front of World War II , Anastasia Walker (p. 105).*

So how should you play the Russians? They are very similar to the Japanese in that both the Russians and Japanese were willing to suffer high casualties in order to achieve their objective. The Russians generally have the advantage in numbers, giving them the ability to mass and overwhelm the enemy at any given point. The Russian player must be aggressive and willing to trade his men’s lives for ground. He should use his MGs, mortars, and AFVs to suppress the enemy at the point of attack and then flood the zone – and close with the enemy as soon as possible. *Assault! Assault! Assault!*

On defense, again like the Japanese, they were very reluctant to give up an objective once taken. So, do not give up ground unless you have to – make the Germans fight for every hex.

How do the Germans deal with these aggressive Russians – think finesse vs brute strength. The Germans have the advantage in initiative, coordination, firepower, range, and a lower casualty rate. When on the attack, the German player must be more precise in his fire and maneuver and focus on key Russian positions where they can gain a local superiority. He should use his firepower and range to suppress and inflict as many casualties as possible while other units maneuver in such a manner so they can envelop the Russians – gaining the envelopment bonus is key for the German when assaulting. He should avoid unnecessary casualties if possible as the Germans cannot afford to trade step for step with Russian infantry.

On defense, the Germans should employ the bend but not break approach with a flexible defense in depth. He should place his units so that they can best provide mutual support and use their firepower to inflict as many casualties as possible, while avoiding fights he can’t win. He should be aware of Russian infantry infiltrating his lines and possibly cutting off his retreat and have reserves available to reinforce any key positions that come under assault.

## Tactics

**Attacking Principles:** When maneuvering to attack, it is extremely important to use the terrain tactically to get as close to the enemy as possible without being seen. Remember, if the enemy cannot see you, his reactions will be limited because if he can’t see you, he cannot react. *This is a key to success in LHY*. Avoid impatient and careless behavior. Be aware of how quickly things can change,

especially for the attacker when he loses the Initiative. Expect the unexpected, and be willing and prepared to adapt.

Prior to closing with the enemy, draw his fire to pinpoint his location and locate any hidden anti-tank units. Infantry sections are particularly suited for this. Try and get at least one section, or another combat unit within three hexes of the enemy, close enough to draw the enemy's fire so that the defender loses his concealment and hidden units are revealed, allowing your units to react and fire against any revealed enemy unit.

Concentrate your effort, and avoid wasting your strength on numerous unimportant targets. If attacking several positions at once, the enemy may easily destroy you by concentrating successively on each attacking element. Instead, select and strike a key position with all the power that can be mustered at the point of contact. If this position falls, others may then be taken. Look for isolated units to defeat with overwhelming force.

Advancing units, especially across open ground, are extremely vulnerable to enemy fire. Use small arms and mortar fire from stationary positions to suppress known enemy positions, reducing his reaction fire against your advancing units. Mortars are especially useful in suppressing enemy hard points prior to an assault. Also, consider the use of smoke to screen your advancing forces. Caution: mortar availability can vary, so plan ahead and use mortars judiciously to ensure they are available when they are needed the most.

It's difficult to force an enemy from prepared defenses by using small arms or mortar fire alone. In LHY, as in real life, prepared positions will have to be assaulted. To assault, the assaulting units must begin their *action* within two hexes (the last 100 yards) of the enemy. It is even better when the attacker begins his action adjacent to the enemy because the enemy will not be able to react prior to being assaulted. Once the enemy has been assaulted, other friendly units can reinforce the assault. When possible, encircle the enemy position by entering from different directions and maneuvering units into a position to block an enemy's retreat.

Maintaining momentum can be difficult if the attacker does not have the Initiative. His maneuverability is restricted and all fire is limited to reaction fire. Without the Initiative, the attacker must be patient, generally limiting his maneuvers and focusing more on reaction fire against key enemy positions. It is important that the attacker places himself in such a position that when he does regain the Initiative, he can aggressively resume his advance, "making hay while the sun shines."

**Defending Principles:** When on the defensive, consider what you might do if you were the attacker. Study the terrain to identify his most likely avenue of approach and how to best defend against it. Place defending units in positions so that they have interlocking fields of fire. If possible, defend in depth with a screening force, a main line of resistance, and a reserve.

The outpost, or screening force, should be occupied by a minimum number of troops required to maintain constant observation, combat enemy reconnaissance, and harass and delay the enemy. Mortar fire is especially suited for harassing and delaying tasks. These units should withdraw to the main line of resistance once the enemy threatens their position.

The main line of resistance is where the enemy is to be worn down over time. The defender should deploy his squads to cover the front of the platoon area and the intervals on the flanks and to furnish

mutually supporting fires with adjacent platoons. This works well when the assigned frontage is narrow and there are few or no gaps between platoons. When occupying an area with a wider frontage though, the attacker must protect his flank, and any mutual fire support from adjacent platoons is obtained by drawing back the flanks. Small arms and mortar fire should be concentrated on the greatest threat, and situations allowing the enemy the ability to isolate and gain fire superiority against a single defending position should be avoided. Employ enfilade fire whenever possible. Anti-tank units should be deployed to cover approaches best suited for vehicles, defend your infantry, and ambush enemy armor. The defender must be flexible and adapt. Platoon dispositions should be coordinated with supporting weapons in the area.

The attacker will need to concentrate his forces to gain superiority at the point of attack. If mortars are available, this is an excellent opportunity to disrupt and disperse enemy units before a pending attack. Also, when enemy units are assaulting from a non-adjacent hex, they must stop temporarily in a hex adjacent to the hex being assaulted. In this case, mortar fire can be extremely effective against the assaulting units, penning them in place and increasing the risk of casualties.

A reserve force, whenever possible, should be established behind the main line of resistance in areas from which they can limit enemy penetrations, execute local counterattacks, and protect the flanks. Armor and motorized infantry are especially suited for this role. Infantry reserves, if possible, should be placed within at least 2 MP of friendly front-line units so that, when they are assaulted, the reserves can reinforce friendly units in reaction. Wherever possible, place a platoon leader with reserve units so they are ensured the capability to react. Position reserves so that their route of advance affords cover and concealment. Areas in which hostile tanks are likely to operate are undesirable as reserve assembly areas.

The burden of advance is on the attacker and time is major factor in determining the level of victory for him. Therefore, the defender should attempt to delay the advance of the attacker, inflicting additional casualties when able, rather than attempting to defeat him with a single, strong defensive line. The defender should be flexible and prepared to give ground if needed; thus, determine in advance the best place for a second line of resistance. Remember, you can withdraw faster than the enemy can advance.

**Other Principles:** Platoon leaders can support friendly units under fire, assist in the recovery of disrupted units, coordinate MFAs, and lead assaults. But be aware that in an assault, platoon leaders are a casualty risk. Platoons without a platoon leader in play are limited to reactions only. Also, when not in LOS of enemy units, try and keep all units of a platoon in the same hex with their platoon leader. This is critical when you are not the active player because units not stacked with their platoon leader or units without LOS to the enemy cannot react.

When in the primary impact hex of an *initial* mortar fire attack, it is best to withdraw. Although the withdrawing units will suffer the mortar fire attack upon exit, they will avoid the possibility of suffering a subsequent mortar fire attack if the enemy player is successful in extending his mortar fire.

When a disrupted unit is under fire in a hex marked with a DRM marker, it is best to attempt recovery rather than withdrawal, where the unit may be more vulnerable. If possible, move a leader into the hex to assist in the unit's recovery or another undisrupted combat

unit to help protect the disrupted unit and absorb the fire. If not under fire, a disrupted unit should withdraw out of LOS of the enemy and avoid taking any additional fire.

Be aware of enemy units adjacent to yours. These may be opportunities for you, as well as your enemy, to assault from an adjacent hex. By doing so, either player can prevent any reaction fire from enemy units, in essence penning the units in the assaulted hex and therefore taking them out of play. An active or reacting player could then reinforce by conducting an assault from a non-adjacent hex in the current or subsequent platoon activation.

Avoid conducting actions with units that would expose them to superior enemy reaction fire. In many cases, it is better to wait and employ reaction fire against possible enemy maneuvers, especially when they can maneuver within two hexes of your forces. Remember, only units that conduct actions are subject to enemy reaction fire.

If armor support is available, use it first to support infantry against enemy strongpoints. This will also force enemy armor to react in order to relieve the pressure on his infantry, increasing your armor's chance for the first shot. Do not maneuver against enemy armor (*especially superior enemy armor*) unless you can do so with at least a 3-1 ratio and, preferably, from different angles to gain enfilade. In tank versus tank actions, it is generally decided more by superior tactics than superior numbers. However, it is still true to say that single tanks invite destruction. When engaging enemy armor, employ (*i.e., leapfrogging*) fire and maneuver tactics by splitting your force, keeping some of your armor stationary to provide overwatch fire for maneuvering units. Employ Halt & Fire and Shoot & Scoot actions when possible to get the first shot.

*Mike Denson*



GMT Games, LLC • P.O. Box 1308, Hanford, CA 93232-1308 • [www.GMTGames.com](http://www.GMTGames.com)

© 2021 GMT Games, LLC